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THE USE AND ABUSE OF X-RAYS IN THE TREATMENT OF COMMON SKIN DISEASES.*

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Since the introduction of X-ray into medicine it has undergone many vicissitudes, both in the lay and the professional mind, just as bacterins, vaccines or tuberculins have. The resulting chaos in therapy accounts for many disasterous and terrible results following the use of such a potent and powerful agency. Because of such results, X-ray for a time fell into disrepute as would strichnine used in grain doses. Fortunately, X-ray is now on a py accounts for many disastrous and tersound basis, although through negligence or ignorance, bad results may be obtained. We now, however, realize more of its limitations, as well as the wonders of its effect. So wide is the range of its effectiveness, in the treatment of skin diseases, that in the writers experience, about sixty per cent of all chronic dermatoses are relieved or improved by its use. This has led to the attitude on the part of the layman and a considerable number of the profession of recommending a few X-ray treatments for any skin condition that does not readily respond to a salve or lotion. Unfortunately the radiologist is not always a dermatologist and perhaps makes no pretense of being. The result is that in many instances X-ray has become a most pernicious agent. That is, it is pallative. The patient, therefore, never being diagnosed of a disease, of which the skin condition in many instances, is only a symptom. Again, many skin conditions are self-limited and recovery occurs about the time the X-ray effect is expected, causing the therapist to be decorated with an undeserved honor. To point out some of the dangers in X-ray treatments is to explain why some other form of treatment is better in the border line cases if such treatment is equally efficacious as X-ray.

It is well in the beginning to consider the normal laws of X-radiation which correspond in many ways to irridation from radium. It is to be remembered that we are considering here, only unfiltered X-rays. MacKee and Remer (1) of New York have recently pointed out that unfiltered X-rays obey the following laws.

1. The amount of radiation varies as to the voltage, usually measured in terms of spark gap.
2. The amount of radiation varies as to the amount of milliamperage.
3. The amount of radiation varies directly as to the time.
4. The amount of radiation varies inversely as the square of the distance.

Expressed mathematically, this would be:

$$\frac{\text{M.A.} \times \text{S.G.} \times \text{T}}{\text{D}^2} \text{ Equals dosage.}$$

On many hundreds of cases, MacKee and Remer (1) have shown, and controls made with pastilles and radiometer, that with an interruptless type of transformer, at an eight-inch anode distance, and with a spark gap of six inches, (point to point) two milliamperes of current will produce a mild erythema on the flexor surface of a blonde individual in three minutes. Substituting in the formula above, we have thirty-six sixty-fourth as a constant dosage factor. Knowing this, we may solve for any unknown factor in terms of the skin unit. The amount necessary for epilation is one fourth more than the unit dose. The unit dose measured with a pastille corresponds to four Holtsnecks. The epilating dose, therefore corresponds to five H.

Formerly, the so called fractional method of dosage was popular, where a patient

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might be treated one or two hundred times with very small amount of X-ray extending over a long period of time. This form of treatment is now largely discarded and while we use fractional parts of a unit, it may be considered semi-intensive.

Whatever form of treatment is used, we have always to bear in mind that severe sequellae may, and usually do, follow the administration of over one and one-fourth units of X-ray to any one area of skin within a period of one month. Unfortunately many of these sequellae do not appear immediately and may be delayed for a period of years. The important sequellae whic hmay follow the production of an erythema are: Atrophy, Telangectasis, Permanent Alopecia, Scarring, Tanning, Freckling, Keratoses, and later Epithelioma. When an erythema is produced, any of these results may obtain. In treating an epithelioma, we unhesitatingly give two and one-half unfiltered units and disregard the possibility of a superficial scar or an occasionally telengectatic area, however, if we are treating acne this is quite a different matter, as the disease is much less offensive than an improper result from X-ray.

In considering X-ray dosage, there are certain factors as age, sex, texture of skin, circulation, color, location and possible idiosyncrasy which should also be considered. Particularly, if the dosage approximates that of an erythema. A blonde individual is more likely to have sequellae than is a brunette. Another important thing to remember is that a sub-erythema dose may be excited into an erythema dose by the application of irritants or metallic substances such as resorcin, B-naphthol, salicylic acid, arsenic, and mercury. The use of X-ray may be an abuse if used in connection with such substances. It is therefore, well to interdict the use of salves and lotions when X-rays are being used.

In treating generalized skin conditions, it is well to remember that general X-radiation may be followed by malaise, pyrexia, nausea, prostration and leucopenia. It is therefore advisable to divide the body into at least three divisions for treatment on different days to ameliorate the constitutional effects of the treatment.

Since X-ray reduces cell division, we would expect it to be the most effective in those diseases where there is an increase in mitosis. But this is not the only factor entering into the reaction for in many instances as in the pyogenic conditions there is an apparently biological change in the tissues which in turn effects the pyogenic cocci. Again, in some diseases as Psoriasis, generalized eczema and Roacea the skin seems to be more susceptible to X-ray than the normal skin.

The most common skin conditions amenable to X-ray is that general group of diseases which we classify as dermatitis and eczema. In the last group we place all the chronic dermatoses which are nondescript in character and in which we are not able to make a definite diagnosis.

In conditions where there is exudation and considerable moisture, the writer has found X-rays to be of small value. We have treated several scores of these acute cases with negative or mediocre results. After the acute stage has passed, there is a protective response which is usually an over production and in these cases, the X-ray works like magic. In a series of one hundred twenty such cases more than ninety responded in a period of one month. One fourth of a skin unit was given weekly and never more than one and one-fourth units were given within a period of thirty days. In eczema of the scalp one must be careful not to give more than one-eighth skin unit weekly and stop when a total of one-half unit has been administered. In our experience, if more than this is required, the condition will respond better to some other form of treatment. Intertrigo usually responds to hygenic measures and soothing applications but occasionally an Intertrigo is seen which owing to macerations and secondary pyogenic involvement is somewhat difficult to relieve. In these conditions six or eight one-eighth units doses has been of considerable value. This is particularly true in the Intertrigo and macerations seen between the thighs and scrotum. The use of more than a total of one unit should not be used on these areas.

While Seborrheic Dermatitis falls in this group, the writer has treated several score of cases without finding X-rays to be of value in this type of dermatitis.

There is one type of eczema in which we have come to believe that the X-ray has a particular value. In the very resistant Infantile Eczema cases, particularily in individuals whose position in society and mentality is such that they cannot follow a rigorous diet, X-ray is the method of choice. We have recently treated nine cases which were resistant and had been under treatment on and off for a period of one year and after application of X-rays these

cases recovered within an average time of five weeks.

The secondary eczemation seen in infectious eczematoid dermatitis is most amenable to X-ray. It is surprising how rapidly these very resistent conditions will clear up after one or two small doses of X-ray.

In Neuro-dermatitis we are able to stop the intense itching and almost invariably heal the lesions within four to six weeks with the use of one-half to one-quarter unit doses of X-ray. But here again, is the X-ray likely to be an abuse, if these cases are treated in a pallative way without determining the underlying conditions which produce the disease.

In Dermatitis Venenata the writer's experience shows that the X-ray is of no value except to allay the itching and perhaps to contribute to the comfort of the patient, but the amount of X-rays necessary to produce a permanent effect has been too great to justify its continued use.

Of the diseases due to pyogenic organisms, Sycosis Vulgaris stands first, Paraonychia second and Chronic Furunculosis third as diseases indicating X-ray treatment. Sixteen cases of Sycosis Vulgaris have been treated. The dose being somewhat larger than that for Acne, about one-half skin unit being given every ten days. Four or five cases showed such a marked improvement after a very small dose, we were inclined to believe that the biological reaction of the tissues had in someway been changed. It is interesting to note that the diseased hairs in several instances were epilated with one-half unit, while the normal hairs were not affected. In a series of twenty cases of paraonychia, forty per cent recovered with one erythema dose while eighty per cent of the remaining recovered after the second treatment. Eight per cent of the remaining required a third dose and the remaining cases were lost sight of.

Six cases of recurrent furunculosis have been treated with apparently perfect results. Also a number of cases of low grade recurrent infection of an erysipelas nature have been treated with but one recurrence. Four cases of recurrent herpes are so far recovered after a period of ranging from one to three years. However, Chronic Streptococcus Lymphangitis and Chronic Indolent Ulcers have responded less readily and only in about fifty per cent of these have we been able to see promising results from X-rays.

In a recent publication, the writer has pointed out that above ninety per cent of the cases of Acne Vulgaris respond to X-rays, but since all do not respond, it is an abuse of $\frac{3}{10}$-ray therapy to use more than sixteen-quarter units doses in a case of Acne. It may be said here that in a small per cent of the cases that the lanugo hairs are apparently stimulated which however, is only temporary. A temporary increase in pigmentation is another very common complication. In one instance an anetodermie of the back followed a dosage of more than sixteen-quarter units at weekly intervals.

In the writer's experience with Rosacia, Rhinophyma, Acne Varioli formis Carbunculosis, the X-ray has been somewhat disappointing and this agency has been abandoned for other therapeutic measures.

X-ray has not been of much value in the treatment of several hundred ringworms except that it has been very beneficial in clearing up the eczematized patches but the ringworm per se has been little affected by the ray. Along the Gulf Coast, it is almost impossible to treat ringworm of the scalp without epilation, which causes the hair to fall and a spontaneous cure results. In thirteen cases, the average time for the hair to return was thirteen weeks. In one instance the hair grew back curly and had not been so before. In all cases we were able to report a cure. Five cases of ringworm of the beard have been treated in a similar manner with clinical cures. Ringworm of the nails, the writer has treated about sixty cases. The average number of treatments, giving one unit at each treatment to the nail bed. Forty cases have recovered after a period of fourteen months. The writer has treated four cases of Blastomycosis with one and one-fourth unit doses at intervals of five weeks. The lesion had healed after two treatments. Prophylactic doses were given for a period of six months.

Under the granulomas, we may speak of tuberculous skin manifestations. Two cases of Lupus Vulgaris have been treated over a very long period of time without any beneficial results. Four cases of Bazin's Disease have been treated with X-rays with some resolution of the lesions but X-ray has been abandoned in these cases. Of Tuberculosis Verrucosa Cutis and Tuberculosis Oraficialis, we have found X-ray to be an excellent form of treatment. In five such cases we have found an average of three units at intervals of six weeks to be curative. The same may be said of Scrofloderma-ta. Of the remaining forms of skin

tuberculosis we have found X-rays to be worthless.

In the first two or three attacks of Psoriasis, we have universially found a recovery to obtain after X-ray treatment. After atime these cases become recalcitrant or X-ray fast, and we must resort to other forms of medication. Psoriasis of the scalp responds readily, but is somewhat dangerous as the hair in Psoriatic patients may fall out with four one-eight unit doses. If two one-eighth units do not show a marked improvement, some other form of treatment is indicated.

In the group of skin conditions classified as naevi and the angioma group, we have discarded X-rays for radium and carbon dioxide snow. Among the benign neoplasms the use of unfiltered X-rays has a place and we have been able to reduce Keloids according to size in from twelve to twenty-four months. Acne Keloid is more difficult because epilation is a constant source of annoyance. In hypertrophic and contracting scarring we have found X-rays to be a very valuable aid in reducing the contraction and softening the scar in two very bad scars following extensive burns.

Regardless of many case reports I believe that the treatment of Hypertrichosis with X-rays is absolutely interdicted because permanent epilation cannot be obtained without some of the bad effects of X-rays.

Cheilitis, we have treated about a dozen cases with about fifty per cent recoveries.

The X-rays in Molluscum Contagioscum, Xanthoma, Lipoma, Multiple Benign Cystic Epithelioma, and Ulcerating Granuloma of the Pudenda need only be mentioned to be condemned as of no value.

It is not the scope of this paper to discuss malignant disease but in a general way it may be said that in treatment for epithelioma with unfiltered X-ray only the basal cell type should be considered. Curettement followed by two and one-half unfiltered units results in a cure in above ninety per cent of cases.

In the treatment of squammous cell type of Epithelioma, except in the very early cases, the use of X-ray very often constitutes a very severe abuse, as many times we are here temporizing at a time when very drastic measures should be followed. In all forms of Melanodermos the use of X-ray is futile except in the socalled Melanotic Whitlow. The use of X-rays in Lukemia Cutis and in Hodkin's Disease has proven very beneficial in the relief of itching and in the clearing of skin lesions but the early demise of the patients has procluded an accurate observation.

In conclusion it may be said that X-ray is the most valuable of all the therapeutic agencies in dermatology but it is a very powerful and dangerous remedy unless used with discretion. However, if applied with care and accuracy, it is a most harmless agent. The fact that so many conditions respond to X-ray may oft times be a draw back as the condition may be cleared up without ferreting out the etiological factors in the disease, particularly in those conditions where the etiology is obscure. Again, it is of extreme importance that no skin condition be treated without a reasonably sure or definite diagnosis being made. Unless this is conscientiously adhered to, Erythema Nodosum, Pityriasis Rosea, Lupus Erythematous, Rosacea, Nevus Pigmentosa, Keratosis Follicularis or similar conditions may receive X-rays to no advantage.

Lastly, X-ray is a very important part of a dermatologists armentatorium but as a general rule never more than one skin unit should be administered within the period of a month and only in exceptional cases should more than a total of four units be administered.

DISCUSSION.

Dr. J. N. Roussel (New Orleans): I want to thank Doctor Crutchfield for his very excellent paper. I agree with practically everything he has said. In fact, he has covered tht subject so thoroughly that anything I might say about the treatment of diseases in general would be useless. I do want to say one thing, however, and that is this:

I believe that there is one thing about X-Ray therapy of which we are absolutely certain, and that is the fact that it requires at least eleven days for the wave to reach the height of its fury, and it requires another eleven days for it to subside. Therefore, I am opposed to the weekly application of X-Ray at any time. I have been doing X-Ray work for twenty-one years this month.

In the early days we applied the Rays two or three times a week. This kept the condition in a stew, as it were, and those only got well who became disgusted and went home. Then they got well, and of course, they thought, as usual, that the last remedy cured them.

Today we X-Ray a patient and wait three weeks, then we can see results. If you X-Ray a patient today, and again in ten days, the waves overlap, with the result that the lesions do not heal.

Dr. Henry Menage (New Orleans): It is an unusual procedure to begin with the opener of the discussion rather than the writer of the paper, but the statement made by Doctor Roussel about waiting eleven days, and then another eleven days, to get the effect of the X-Ray, holds good only in a certain number and type of cases. In a great many cases you cannot wait three weeks to repeat the dose any more than you could eat a full meal today and wait five days for another.

The paper by our friend Crutchfield is so vast in its possibilities for discussion, he has covered practically the whole of skin diseases, so I cannot add much. I want to say, however, that if I were limited to a certain measure in the treatment of diseases of the skin I would select the X-Ray and give up the others. If I were condemned to treat skin diseases wtihout an X-Ray machine I would give up my job. X-Ray therapy is probably the best single method of treatment that we have for skin diseases. To attempt to relieve the patient—I do not say cure, but to relieve the terrible agony of a patient suffering from incurable conditions—without an X-Ray machine marks the dermatologist as practically antedeluvian.

Dr. Harold G. F. Edwards (Lafayette): I am not a dermatologist; my field is Roentgenology, and I come before you in defense of Roentgen-ray therapy. My observations do not quite agree with those of Doctor Crutchfield as to acute eczema. Probably the reason he is not getting better results with Roentgen-ray treatment is because his doses are excessive or too heavy. It must not be forgotten that the cells in acute eczema are more sensitive than in other conditions. It has been my pleasure to have cases referred to me after they have gone through the pharmacopea of the dermatologist and are still acute. Sub-fractional doses given at ten or fifteen-day intervals have given me results—this is wisely supplemented with a mild lotion such as Dodd's formula.

As for seborrhoeic dermatitis it has been my good fortune to get results.

Carbuncles, if we get them early enough, can be aborted, and as Dunnham says, is one of the zeniths of Roentgen-ray therapy. The pain which the patient suffers disappears almost at once and he gets relief.

Dr. S. C. Barrow (Shreveport): I want to congratulate the dermatologists on the progress they have made in the last few years in adopting the use of X-Rays. Sixty per cent of skin lesions are amenable to X-Ray therapy. That means 85 to 90 per cent of those who come to us in office practice.

I cannot let this pass without making the point that the greatest confusion results from the indiscriminate use of the advertising of the manufacturer. The manufacturers are trying to put into the minds of the medical profession that all they have to do is to buy a machine. We know it takes more than simply the purchase of a machine to treat dermatological conditions with the X-Ray, and if the advertiser were to co-operate with us it would be to our advantage and theirs and there would be less discredit thrown upon X-Ray therapy than there is today.

Dr. Earl D. Crutchfield (closing): I want to take this opportunity to express my appreciation of the invitation to read a paper before this Society, and I appreciate the reception the paper has received.

In regard to acute eczema, in spite of what Doctor Edwards has found and his criticism of our technique, I would say that we have used all forms of dosage for the cases he speaks of.

One other point that Doctor Barrow brought out is particularly good, and that the X-Ray, like the administration of anything else, it is a question of judgment. It very often can be abused, and there is no question that it has been abused in the past. Many people say "X-Ray is no good; it did not cure me." That does not mean that the X-Ray is not good treatment. If properly used it may be the best treatment.

ENDOCARDITIS FROM THE STANDPOINT OF PREVENTION*

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The rapid increase in mortality from cardiac disease during the past decade, even to the extent to taking precedence over tuberculosis and pneumonia as a cause of death in certain periods of life as shown by the reports of the Industrial Insurance Companies and in the statistics of the registration areas, makes us pause and consider if we are applying our present knowledge of prevention as regards cause and with proper care watching the heart in the acute infectious diseases for the first signs of distress.

It is estimated that two million men, women and children in the United States are suffering with serious heart impairments and that the death rate of these is double the normal..

In a group of wage earner's children between the ages of two and fifteen years, as shown by the Industrial Insurance Statistics, it caused more deaths than did whooping cough or scarlet fever.

After the age of twenty-four there are more deaths among men than women, thus the disease strikes directly at the financial support of the family, and as death is preceded by long periods of sickness and diminished productiveness, from an economic standpoint there is great distress, hardship and financial loss.

This paper will only treat with acute endocarditis as one of the preventable causes of mortality; however, realizing that most observers have drawn attention to the fact that endocarditis does not exist without some myocardial inflammation and that myocarditis does not occur without endocarditis, and at times pericarditis. Though the greater the inflammation in the endocardium, the more danger there is of permanent serious change in the valves; hence, simple endocarditis is the starting point of our chronic valvular lesions and an ultimate cause of death.

Endocarditis is an inflammation of the lining membrane of the heart, which inflammation has a special selection for the valves, particularly the mitral and aortic.

It cannot be regarded as a primary disease, but is secondary to some infectious process or the direct result of circulating toxic products.

*Read before the Mississippi State Medical Association, Jackson, May 13-14, 1924.

Acute endocarditis, clinically, may be dimalignant or fulminating.
vided into two types, simple or benign and

The simple is the most common and the malignant may be regarded simply as a virulent infection; however, Martinet calls attention to the fact that all infections may give rise to either of the types, and it is the soil in which the infection develops which imparts to the process its virulence rather than the infection itself.

Acute simple endocarditis is more commonly a disease of childhood and adolescence than of adult life because the occurrence of rheumatic fever is more common at this period of life.

Denzon has recently recorded three cases of rheumatic endocarditis in children under three years of age. However, it is found during all ages and often appears as an acute manifestation in chronic valvular lesions.

Fully 70 per cent of the cases are of rheumatic origin. Cowan, tabulating 1,750 cases of acute rheumatic fever, from five different observers, found that 53.3 per cent developed endocarditis.

Chorea is second only to rheumatism as a causative factor. Osler states that "there is no disease in which, post-mortem, acute endocarditis has been so frequently found.

Follicular tonsilitis with or without joint involvement is a common cause. There is certainly a close relationship between rheumatism, chorea and infected tonsils. Some believe the tonsil to be the portal of entry for the infecting organism.

Infected teeth and oral infections of all types.

The other primary infections are pneumonia, scarlatina, influenza, erysipelas, gonorrhea, typhoid fever, tuberculosis and cancer, the latter causing trouble from circulating toxins.

Morbid Anatomy. In simple endocarditis there is first a hyperemia behind the free edges of the valves which results in a proliferation of the endothelial and subendothelial cells followed by a deposit of fibrinous exudate forming in warty vegetations of varying size.

Resolution may take place and the valve be restored to normal or the exudate may undergo organization causing a thickening or puckering of the valves and retraction producing an insufficient closure or an ankylosis may occur causing stenosis.

The vegetation may be swept away by the blood current as emboli producing infarcts in remote organs.

The valves in the left side of the heart are the most usually effected, especially is this so of the mitral due to its closure with greater tension and because "its leaflets are subject to a wider range of play."

The auricular surface of the mitral and the ventricular surface of the aortic valves is the seat of the inflammation because they are continuously bathed in the blood current.

The chorda-tendinae are subject to inflammatory deposits and shortening.

In the malignant endocarditis there may be perforation or sloughing of the valves or even perforation of the heart itself.

There may be myocardial inflammation contiguous to the inflamed valves sometimes effecting the bundle of His which will therefore have an influence over the rhythm of the heart.

Aschoff bodies may be found in the myocardium in endocarditis.

Symptoms. There are no characteristic symptoms of simple acute endocarditis; however, by massing the symptoms and physical signs a diagnosis can usually be made.

The fever is usually irregular; however, it may simulate intermittent malaria or typhoid.

In rheumatic fever or during other infectious diseases when there is an elevation of temperature without an assignable cause as increased involvement in the joints or other symptoms, endocarditis should be suspected.

The pulse is frequent and often irregular; the irregularity being due to auricular fibrilations or extra-systole, and some observers believe that inexplainable palpatation during acute illness to be a distinct symptom of endocarditis.

Dyspnoea is a strong symptom, especially if this comes after exercise or a hearty meal.

Pain in simple endocarditis is not common except when it is associated with pericarditis. At times a precardial distress is present and in children the pain may be referred to the epigastrium.

Pre-cardial tenderness is sometimes present in nervous individuals, also pallor and giddiness on exertion.

Physical Signs. There may be little noted, on inspection, except at times a displacement of the heart to or beyond the nipple line and the cardiac impulse may be forcible or wavy with pronounced apex beat.

On palpation the pulse is found rapid and sometimes irregular. In auscultation there may at first be only a muffled valvu-

lar sound followed by an accentuated second sound. Later the systolic blowing murmur heard best at the apex, and when organic transmitted to the left into the axilla.

Prognosis. There is no disease in which the prognosis should be more guarded, for a seemingly harmless and apparently mild attack may leave a seriously damaged valve which means in some cases semi-invalidism.

The convalescence must necessarily be slow and the patient remain in bed for a long period of time, in some cases three to six months. However, time is no object compared with the future welfare of the patient.

Treatment. The treatment of endocarditis may be divided into curative and preventative. There is no curative. However, there is hope that there will be advancement made in intravenous therapy in the malignant types, and here our biologic chemists have a rich field for experimentation without doing any more harm to the patient than the disease.

It is a recognized fact among clinicians that the majority of cases of acute simple endocarditis are preventable, and in the second place when there is a developed endocardial lesion that by proper care the process may be limited in its damaging effects and the valves saved from permanent disablement.

There is need of a wider general education among school children and the public at large regarding the causal relationship between focal infection and heart disease and more instruction in personal hygiene and care of the heart in rest and work, with special reference to occupation, and in this to fit a man's occupation to his heart capacity.

The routine examination of children of school and pre-school age by competent medical men should grow into a general practice and many of the heretofore neglected and undiscovered foci of infection in the upper respiratory tract and mouth be found and corrected.

Here, too, the incipient valvular defects may be found, and the patient be directed in a proper mode of living as regards diet, exercise and habits which will prolong life.

The causal relationship of rheumatism, chorea and follicular tonsilitis to endocarditis cannot be too strongly emphasized here. I speak of rheumatism in its broader sense, with its protean manifestations of growing pains, wryneck, general myalgia and inflamed joints, all cry out to us to look for the cause, remembering that they may be followed by endocarditis.

In rheumatic fever, chorea, pneumonia, scarlatina and the other infectious diseases the heart should be examined daily.

It is the duty of the physician to be diligent in apprehending the first symptoms of trouble, and when the disease is established to limit the process and prevent the destructive changes in the valves and myocardium. This is best accomplished by rest in the recumbent position, not allowing the patient to raise or turn without assistance.

Both the patient and the family should be apprised of the seriousness of the disease as regards its disabling sequellae, thereby gaining their co-operation which is so necessary for a successful management of the case.

The bodily rest is of no greater importance than that of the mental, and all emotional excitement should be avoided.

Should the heart be rapid, the use of the ice bag as a sedative is indicated.

The diet should be given at regular intervals, and of well selected foods and to avoid intestinal distention, the bowels should act daily.

The patient should sleep at least ten hours in twenty-four and during the waking hours, if possible, be in the sunshine and fresh air.

Intravenous salicylates and alkalies when the disease complicates rheumatic fever is of some value.

Morphine in small doses may be used in cardiac distress or when the heart is weak and blood pressure low and the patient apprehensive.

The ferrigenous tonics and green vegetables to forestall the aenemia may be given.

Autogenous vaccines may be tried, but from the investigations of Billings they are of very little real value, at least they are not constant in their results.

The patient should be made to co-operate and, by encouragement, kept from depression.

In convalescence the progress to the horizontal position should be gradual and when up and walking the action of the heart should be observed.

In conclusion to summarize: There is an increasing mortality and morbidity in heart disease.

Prevent the advent of endocarditis by clearing up the focal infection of the

mouth and throat by removal of diseased teeth and tonsils.

In rheumatic fever, remembering that 50 per cent of the cases are complicated by endocarditis and the rheumatic heart is a potential heart for trouble.

Prevent endocarditis and you prevent chronic valvulitis.

DISCUSSION.

Dr. Hiram G. Williams (Prentiss). I think I would be unfair to you if I did not make some statement in regard to rheumatic endocarditis. I feel that there is a weak point among the general practitioners, their inability to recognize this disease early. I have had a good deal of experience in the last few years; in fact, the disease visited my home, and I feel after careful observation that I can say that this disease is an infectious disease originally, either of arthritic or rheumatic origin, and perhaps tonsils and bad teeth may cause some of it. The malignant type we get more commonly in children, and especially in girls, and my observation is that it is most commonly found in girls from five or six, to twelve or thirteen. I am speaking of the type that gives us so much trouble. This disease should be recognized early and the patient referred to a tonsil specialist or a dentist immediately.

In one of these cases of mine the child in which two teeth were taken out two days before the child died, after it had been sick for three or four months. Those teeth were found to be abscessed.

In the diagnosis of those cases associated with rheumatism we get distinct arthritis in a majority of cases. In the typical case we get nodules above the elbow and near the knee joint in front, and at postmortem we get Acoffs bodies in the valves of the heart. When these Acoffs bodies are found the case is always fatal.

The streptococcus veridans is the primary cause evidently of acute rheumatic endocarditis. If we suspect these cases a culture of the blood should be made by a competent laboratory man to see the nature of the infection. In that way we are able to reach much more definite conclusions than would be otherwise possible. We get an enlarged liver and weakness of the heart, and of course we get a myocarditis, also various heart sounds, and pain of the heart and left arm. We get an enlargement of the spleen, and a general febrile state, rather indefinite. In these cases the patient may last two or three, or even six months. On the contrary, if recovery takes place it is more gradual.

With regard to diet, I do not think it should be too concentrated, but should be well selected. The patient should be kept quiet in bed. I am not sure about the ice bag; I have never gotten results from it.

In regard to treatment, the primary treatment is elimination of foci of infection, and I believe if we get these cases early we should give large doses of salicylates. I regret that in one or two cases I did not give large enough doses. We give 5/10 gram (½ gm.) of salicylate for each kilogram of body weight daily. I have a patient now, a young woman 27 years of age, who is practically convalescent. She has been taking salicylate of soda about six weeks, as high as 180 to 240 grs. daily at first. She is taking 45 grains a day now. She gets sodium cacodylate by hypodermic every 3 to 5 days now. She has had no fever for four or five weeks. When I first saw her she had a complete arthritis with evidence of endocarditis. Whether she responded to the rest or the treatment I am not sure, but she is convalescent, and I believe will get well.

If a patient has an obscure fever with an irritable heart, and any pain in the body, be suspicious of arthritis and impending endocarditis, and immediately put that patient on large doses of salicylate. If that is done I am sure we will save many lives that would otherwise be lost.

Dr. Whitman Rowland, Jr. (Oxford): The prevention and care of endocarditis lies definitely in early diagnosis. The essayist has given a very adequate outline of the method of handling those cases, and I simply want to bring forward a few points that might be of value in the early diagnosis of the condition.

First, I would mention a definite familiarity with the diseases with which myocardial and endocardial involvement are associated. Recognition of the diseases with which heart infections are frequently associated stimulates frequent and careful examinations of the heart. In a child definitely infected with certain diseases it is the duty of the careful clinician to keep watch of the heart. An early sign we notice, and a most valuable sign, is a change in the character and rate of the pulse. It is difficult to ascertain in a child because the cardiac mechanism is illy balanced, subject often to nervous influences, and it is difficult to detect a change in pulse rate. It cannot be detected by counting the pulse for a minute. Palpation of the radial pulse or the carotid in the supraclavicular region of the neck for five minutes will sometimes give indication of a change in pulse rate which may indicate early involvment of the myocardium.

We have found that one of the early indications of myocardial involvement is a disturbance in cardiac rythm, manifested by premature contractions. The term "extra systole" is a misnomer, because it implies an extra systolic contraction, and this does not occur. The heart beats along regularly, suddenly a contraction occurs out of time which is premature. That systole is not extra, it is premature, so the term "extra systole" is a misnomer. The occurrence of premature contractions is one of the early symptoms of myocardial involvement in a child.

Another symptom of value is a change in the position of the apex beat. Early in the disease it moves outward. Any indication of ventricular dilitation is indicative of myocardial involvement and should be looked upon with great suspicion.

In regard to treatment, drugs as such have little place. As to the use of salicylates, these cases are frequently associated with an acute nephritis. It has been demonstrated that large doses of salicylates increase the irritation of the kidneys and perhaps it is better to rely altogether on rest. That is the thing that gets them well. They do not get well in two or three days, but as the essayist has said, it may take months. Time is not to be considered. With proper rest in bed a large percentage will recover from the acute condition, and by proper rest you may prevent trouble in later life.

Dr. N. S. Stern (Memphis, Tenn.): This ques-

tion has been taken up from the point of view of prevention, and in order to prevent we must understand the etiology of endocarditis.

The point of view of the rheumatic type of heart disease has been thoroughly discussed, but there is one thing that has struck me of late years, and that is the relatively small amount of this type of disease in this part of the country. If you go to the north, to the east ,to the coast, you find a great deal of rheumatic endocarditis. In the Middle West and South you will find relatively little. I have been interested in the point of view of the etiology and incidence of the causative factor, in the Memphis General Hospital. In the past two years there have been 10,000 admissions, and there have been 9 cases of acute rheumatic fever. Furthermore, we have been watching the hearts of children and adults there for some time, and have found extremely few definite rheumatic hearts which come from the tonsils, and certainly there are plenty of tonsils taken out there, as everywhere in this country. They are taken out for definite indication, but very few hearts are involved. Evidently there is some difference between this part of the country and Chicago, New York, Boston and Philadelphia, where endocarditis is more frequent. A recent study of over 100 cases has shown that the rheumatic type of heart is rather rare. This, I believe, is a point that has not been brought out.

The type of heart disease that we do find most commonly is that associated with high blood pressure and general arteriosclerosis, but since this type is not associated with endocarditis except perhaps in the last stage, we will pass it by.

There is one definite type to which I would like to call attention, and that is syphilitic endocardities. It comes between the age of 35 and 50, usually 15 to 25 years after the primary infection. The disease first manifests itself ordinarily by dilation of the aorta. Careful percussion will sometimes suggest this, and X-Ray studies will confirm it. If you watch the heart carefully at this period you may find the murmur of regurgitation which is characteristic. If you take the condition at this time you have an excellent chance to cure it. If, however, you let it go on, it will develop fairly rapidly, symptoms of heart failure will supervene, and in three or four years you will have lost a patient. But if you take these patients at the time that these murmurs start, or before, when the condition is just beginning, and treat them thoroughly for syphilis you will sometimes stop the advance of the condition and save your patient from a cardiac life later.

In the treatment of this condition it is well at first not to use the arsenical group. This group tends to rather rapid absorption of the syphilitic tissue which would certainly increase the valvular lesion and leave the patient worse than before. I believe you should treat him rather thoroughly with mercury because that has a tendency to absorb the luetic tissue more slowly. In other words, there is less destruction of the valve from treatment and better results in the long run will follow if you give thorough treatment with mercury first and then with the arsenicals.

Dr. J. B. Howell (closing): I thank the gentlemen for their discussion. I thought I had said that any ———— joint manifestations should be watched. While formerly it was not supposed to have much influence on the endocardium, I think it now does have considerable influence as a cause in these cases of endocarditis.

LEADING FACTORS CONTRIBUTING IN THE CONTROL OF TUBERCULOSIS, WITH REFERENCE TO INSTITUTIONAL REQUIREMENTS FOR THE STATE OF LOUISIANA*

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NEW ORLEANS

In accepting Dr Ellis' gracious invitation to present to this section a paper on the subject of tuberculosis, I thought that you migh be interested in the discussion of the practical anti-tuberculosis measures that are accepted by phthisiologists, as the leading factors contributing in the decrease of the morbidity and mortality of tuberculosis.

Twenty years ago a small group of men organized the association known today as the National Tuberculosis Association. The objects of this association are well founded, and we can justly accredit the National Tuberculosis Association with promoting the earlier anti-tuberculosis drives. However, from the list of members in this association who register from the state of Louisiana, it is clearly seen that we have failed to avail ourselves of the scientific and educational advantages offered by the National Tuberculosis Association. I do trust that the physician who is seriously interested in the subject of Tuberculosis will feel assured, that the Transactions of the National Tuberculosis Association and the Tuberculosis Review are valuable assets in any physician's library, and are as indispensable as the American Medical Association and Southern Medical Association Journals.

Although the study of Tuberculosis in all its forms and relations is a broad and intricate subject, we can at least seek to acquire a limited knowledge of the pertinent facts that enter into the solution of the difficult problems pertaining to the cause, prevention, diagnosis, treatment, and eradication of the disease.

When Prof. Koch permanently established the fact that the development of tuberculosis in man, is the result of the invasion of a more or less virulent type of tubercle bacillus upon the body of an individual whose tissues have been more or less lowered in their resistance to infection, it was thought that the disease would be eradicated in a few years. Unfortunately, the world was not to be so blessed.

*Read before the Louisiana State Medical Society, Opeloussos, April 22-24, 1924.

It is only in the past few years that we have begun to visualize the numerous and varied sources through which the attacking foe, the tubercle bacillus, may find its way to man's vital organs.

A tuberculous infection in man results chiefly from the inhaling or ingestion of the human type of tubercle bacillus, which is always present in the sputum and secretions emanated by every case of "open" tuberculosis, whether it be "active" or "latent."

The bovine type of tubercle bacillus is held responsible for about twenty per cent of infections, particularly in children.

The acquiring of the preceding knowledge has led to the final recognition of tuberculosis as an infectious and communicable disease, therefore reportable and coming under the jurisdiction of the various rules and regulations of the Board of Health.

Being the finding of tuberculosis is the first step forward in the control and eradication of the disease, the reporting of all cases of tuberculosis showing bacilli in the sputum or other secretions, is a very helpful means in determining the location and distribution of tuberculosis in a community. Unfortunately, cases are reported in many instances, only when the patient has reached the final stages of the disease.

With the establishment of the visiting nurse as an indispensable asset to our Boards of Health and Clinics, the reporting of a case of "open" tuberculosis should mean more to the physician that the mere recording of such a case. If a physician does not condescend to report his cases, he should at least be conscientious enough to shoulder the whole burden and responsibility in applying the more important prophylactic measures, such as the proper use of paper-napkins and sputum-cups when the patient coughs and expectorates, and especially should be given full instructions about house hygiene and personal cleanliness, and in the boiling of all table utensils used by the patient.

By so doing he will minimize and prevent the spread of the disease to other members of the family, and principally to the children of the community. The latter is very important, for the majority of cases of adult tuberculosis are nothing more than the aftermath and flaring up of a tuberculous infection contracted during childhood. The one who fails to report his cases of "open" tuberculosis, deprives our health authorities and anti-tuberculosis agencies of valuable information; and the consequence is, that the visiting Health Nurse does not reach the threshold of the infected domicile, and the patient's immediate relatives and friends are kept in utter ignorance of the dangers to which they are being subjected, and are deprived of valuable aid and advice, which in many cases means the welfare of not only the patient, but of his family, if not of the entire community.

Next to be considered in the program for the eradication of tuberculosis, is the undertaking of extensive community medical examinations, carried on under the auspices and supervision of private and public clinic staffs; private and public school medical examiners; as well as by our civic and industrial medical units.

The systematic examination of all employees in factories and other places of industry; of all civic employees and school children; and in fact of all our population, by competent medical men well versed in the diagnosis and treatment of tuberculosis, will be a means of detecting the disease in its incipiency, and thereby warding off the danger of the disease being communicated to others.

Coming hand in hand with the above, is the persistency of our health agencies in demanding the promotion of such health activities, as thorough statistical and sanitary surveys; thereby enlightening the community upon existing conditions, and also giving the location and distribution of all infected cases, with the areas of filthy and unsanitary dwellings and environs.

The finding of the "open" case of tuberculosis is particularly important and interesting; however, if possible, we should endeavor to go a step further in order to determine the spread of the "infection" in the community. This we can do with the administration of the tuberculin tests—not limiting the tests to cattle, but applying it to all members of the community, primarily our children population.

This suggestion I know many will call "ultra exaggeration." Yet, how are we going to determine the spread of infection in a community, unless through the detection of the number of cases reacting positively to the tuberculin tests? Certainly, the cases who present only an "infection," are not such vital factors in the spread of tuberculosis, as those who have bacilli in the sputum; but the detection of their deficiency, i.e., their tuberculous state, is a valuable asset in mapping out a "mode of living" and a proper environment that will remove

the sword of Damocles which hangs overhead of all such cases. True, they are not diseased so far as the manifestation of symptoms is concered. However, do we know when this state of simple infection will develop into one of virulent disease?

The advocators of race immunity against tuberculosis, contend that the greater part of mankind, who in childhood or later on, have been exposed to infection, do not suffer from tuberculosis as a manifest disease consequently, the reduced prevalence of the more morbid forms of phthisis. This may be to a certain extent, but it is not a proven and established fact.

Personally, I would rather see my community absolutely free from tuberculosis, be it "infection" or "disease," than to have the present conditions with such prevalent morbidity and still high mortality.

Recently we are hearing such statements as the following: Why so much talk about tuberculosis? The mortality of tuberculosis has decreased fifty per cent in the last twenty-five years, and will continue to decrease, for the disease is weaning itself away from civilized centers and populations that have shown a high death rate for several generations.

This prophecy is based upon too flimsy evidence, and the author for one will urge all of you, not to discourage or abandon the noble workers that have labored incessantly in developing the anti-tubercuosis crusade. It may take more than one generation to accomplish permanent results, but let the work go on by all means, until the disease has been completely eradicated.

Reports from the Framingham Demonstration, and from New York and other states, show that from one to two per cent of a typical American community will present manifestations of "active" tuberculosis, and another one per cent will be tabulated among the "arrested" cases.

Forty to ninety per cent will show only a tuberculous "infection," while five to ten per cent are eventually going to die of tuberculosis. Does this demonstrate that the disease is weaning itself out? Apparently not.

Having found tuberculosis, we should have at our command, practical measures that when applied directly or indirectly, will affect the future morbidity and mortality of the disease. It is pleasing to mention that our Health, Hospital, Anti-Tuberculosis, and Civic institutions in New Orleans, have recently contributed a leading part in the maintenance of clinics and nursing facilities in tuberculosis.

I have already mentioned the importance of the work done by the Public Health, Clinic, School, Social, and Industrial Nurse; and I will venture to state that more effective work can be accomplished, if the nurse was better equipped with the knowledge required for the carrying on of the various intricate measures which are so necessary to solve the many difficult problems that confront the tuberculosis worker. We cannot expect a nurse supplied only with a limited knowledge and equipment, and meager medical assistance, to accomplish much in any community; either in the detection of "active" tuberculosis, or in the direction of patients in their mode of living and application in treatment. The supervision of a physican with a thorough knowledge of the prevention, diagnosis, and treatment of tuberculosis, and especially interested in the welfare of the tuberculous, provides the strong link to the defective chain, as evidenced by the good work done in some clinics, schools, and factories. This will permit the detection of a greater number of cases of tuberculosis in the earlier stages, and allow a better and more effective assignment of cases for advice and treatment. We must admit that it is difficult, at times, to procure the services of a physician who has any intimate knowledge of tuberculosis; and we shall meet with this shortening, as long as our medical schools persist in ignoring the true conditions, and refuse to give their students better facilities and more practical instructions in phthisiology.

Adequate and competent medical machinery and nursing facilities, are most essential to carry on the success the many departments which are provided, either for the detection and prevention of tuberculosis, or for the re-establishment of the diseased tuberculous to a normal health state.

Whether it be the Tuberculosis Clinic, Sanatorium, Hospital, Child Welfare Service, Industrial Medical Unit, the medical officer in charge must have some general knowledge of tuberculosis, in order to recognize the disease in its "minimal" stage, either in the "active" or "latent" state. He should be able to impart to his patients the true nature of the existing illness, while always giving an encouraging statement. He should be firm in his orders, and considerate of the individual's personal and financial ability to carry out instructions.

How ridiculous it seems to tell the sole supporter of a large family, that he must quit work and go to some climatic resort for rest in the open air, eighteen of the twenty-four hours—and then without worry; when poverty stares him in the face, and he has no sleeping porch facilities at his command; or, to tell the restless, uncontrollable and careless young miss and lass, that they must rest from breakfast to supper, and are expected to do so of their own voilition and without the constant watching of some disciplinarian.

The Private Office or Clinic, for the "home-treatment" of ambulant cases; the Sanatorium, for the treatment of "minimal" and moderately "advanced" cases; and Hospital, for the care of the "far-advanced" cases, are three institutions which we will need for many years to come, though some believe that the utility for such institutions has about passed. All three play a prominent part in the educational program of tuberculosis, and no doubt have contributed their share to the decrease in the morbidity and mortality of tuberculosis.

It is unfortunate that we have been so slow in establishing such institutions in Louisiana—the Breaux Building of the Charity Hospital in New Orleans, remains the only tuberculosis institution under the control of our State Department. New Orleans, with its population of four hundred thousand inhabitants, should have sanatorium and hospital bed facilities for approximately 275 white and 350 colored tuberculosis patients; and the State similar facilities for approximately 350 white and 850 colored tuberculosis patients— in order to meet the requirements and needs of the number of cases that require institutional treatment.

Let us hope that the coming Legislature will follow the striking example of our neighbor—the State of Mississippi, and will establish Tuberculosis State Sanatoriums and Hospitals, that will meet the needs of at least fifty per cent of our tuberculosis population.

Presuming that some one might raise objections to the establishment of tuberculosis sanatoriums and hospitals in our Louisiana climate, thereby attach results reported by the Dradom Tuberculosis Sanatorium, at Covington, Louisiana, showing conclusively that, witn proper care and application, results in the treatment of tuberculosis are as favorable in our balmy climate of Louisiana, as in any other section of the United States.

With the establishment of a greater number of private and public clinics, sanatoriums, and hospitals, not only will a large number of our tuberculosis population, who at present are doomed to a premature death from the lack of proper care and treatment, will be benefited; but many disabled tuberculous will be returned to the State as wage earners and assets to their community. Tuberculosis will then be detected in its "minimal" stage, and the prompt administration of the hygienic-dietetic and "accessory" treatments, will practically benefit one hundred per cent of the cases under the supervision of these Institutions.

Does our surveillance and duty to our patient cease when we find him free from any of the physical, clinical, or laboratory findings, that were present during the "active" period of his illness? Certainly not. We must not overlook that "man's resistance to infection"—that body function whose veil of mystery scientists and phthisiologists are strenuously endeavoring to lift, in order to determine the true nature and relation of immunity to infection —plays an important part in the prevention of tuberculosis, as well as in the averting of a "relapse."

The real test showing the curative value of the Clinic, Sanatorium or Hospital is: What percentage of patients stay well after returning to their work or occupation?

With the improved working conditions in our factories and business places; with fair earnings wages and betterment in the well being of our working population; with a clearer enlightenment and understanding prevailing between employer and employee, and above all, with the establishment of industrial and farming colonies in the St. Tammany Ozone Belt and other salubrious sections of Louisiana—where the "Quiescent" or "Arrested" cases can avert a relapse by working under proper medical supervision, yet being self sustaining—we will find that the money spent by our State and Civic Institutions, and nobly contributed by our Philanthropists, will repay this great republic a hundred fold by removing from its midst a scourge that undermines the health of its population.

1923 *Report of the Dradom Tuberculosis Sanatorium, Covington, La.*

The two hundred and twenty-seven cases of Plumonary Tuberculosis treated from

1905 to 1920 and herein reported, were classified according to the Scheme of the National Tuberculosis Association, as follows:

Minimal Stage (P)—30 cases.

Apparently Cured—30 cases or 100 per cent.

With 10 cases of 33.3 per cent at work 10 to 15 years following discharge from treatment.

With 20 cases or 66.7 per cent at work 3 to 10 years following discharge from treatment.

One of the above cases died of Paresis 16 years following discharge from treatment.

Moderately Advanced Stage (P)—84 cases.

Apparently Cured—77 cases or 91.6 per cent.

Quiescent—6 cases or 7.2 per cent.

Improved—1 case or 1.2 per cent.

With 27 cases or 32.2 per cent at work 10 to 15 years following discharge from treatment.

With 48 cases or 57.2 per cent at work 3 to 10 years following discharge from treatment.

With 1 case or 1.2 per cent condition uncertain, 10 to 15 years following discharge fro mtreatment.

With 3 cases or 3.6 per cent condition uncertain, 3 to 10 years following discharge from treatment.

With 4 cases or 4.6 per cent dead from tuberculosis, 3 to 12 years following discharge from treatment.

With 1 case or 1.2 per cent dead from ether anesthesia, 2 years following discharge from treatment.

Far Advanced Stage (P)—113 Cases

Apparently Cured—24 cases or 21.3 per cent.

Arrested—1 case or .9 per cent.

Quiescent—44 cases or 38.9 per cent.

Improved—35 cases or 30.9 per cent.

Non-Improved—9 cases or 8 per cent.

With 12 cases or 10.6 per cent at work 10 to 15 years following discharge from treatment.

With 18 cases or 15.9 per cent at work 3 to 10 years following discharge from treatment.

With 5 cases or 4.4 per cent condition uncertain, 10 to 15 years following discharge from treatment.

With 10 cases or 8.9 per cent uncertain, 3 to 10 years following discharge from treatment.

With 25 cases or 22.1 per cent dead from tuberculosis, 2 to 6 years following discharge from treatment.

With 40 cases or 35.4 per cent dead from tuberculosis, 4 months to 2 years following discharge from treatment.

With 3 cases or 2.7 per cent dead from nephritis 1 case, pneumonia 1 case, and child birth 1 case, 1 to 4 years following discharge from treatment.

The primary cause in the 69 deaths from tuberculosis was as follows: Pulmonary Tuberculosis 53 cases, Pulmonary Hemorrhage 2 cases, Diabetes 2 cases, Empyema 2 cases, Laryngeal Tuberculosis, 5 cases, Intestinal Tuberculosis 5 cases, Abscess of the Lung with Surgical Drainage 1 case.

No case under treatment less than four months was included in this report.

The duration of treatment varied from four months to three years, depending upon the status of the patient, and the stage of the disease.

DISCUSSION.

Dr. J. E. Knighton (Shreveport): About two years ago I brought before this Society a paper dealing with some of the problems to be settled by the medical profession in co-operation with the public. One of these problems was that of tuberculosis, and some of the things I said in that paper were strictly in harmony with the suggestions that Doctor Durel has brought out in this paper. I am glad to hear that same note sounded again. I at that time called attention to the fact that our neighbor State of Mississippi was spending two and a half million dollars for the building and maintenance of a tuberculosis hospital. Our State certainly should do for our tuberculous poor and indigent what our neighbor State is doing. It is tragic, indeed, it is criminal, to say to an individual that he must go away to a high, dry climate, among strangers, and frequently among an unsympathetic public—to suffer and die in an attempt to maintain himself under these conditions. We should keep our people at home and treat them at home and give them a chance to get well and live among friends and in their normal environment.

Dr. Oscar Dowling (New Orleans): I have some statistics pertaining to this paper which Doctor Durel asked me to submit.

When a case of tuberculosis is reported it is required that the health officer visit the patient and explain the rules and regulations regarding the disease. Cases—many of them—should be isolated, but where shall we isolate them? The only place we have is the jail, and I do not see any more reason why a man with tuberculosis should be confined in jail than a man who is insane. I do not believe they should go there. Act 42 of 1880 says that the State shall provide for the indigent poor.

The statistics for pulmonary tuberculosis, exclusive of New Orleans, for the past six years, are a matter of record in the office. They are as follows:

		Deaths
1916.....	324	1,369
1917.....	334	1,500
1918.....	322	1,964

1919.....	286	1,514
1920.....	555	1,616
1921.....	2,144	1,414
1922.....	1,011	1,388

In 1922 and 1923 there were taken from the death certificates, respectively, for which no reports were made, 424 and 810, a total of 1,234. When we come to the distribution in districts for a period of six years (1916-1921), taking one parish from each Congressional district, we find the following.

Parish	District	Cases	Deaths
Plaquemine.....	First....	28	79
Jefferson.....	Second..	47	154
Lafayette.....	Third...	84	242
Caddo.....	Fourth..	344	1,030
Ouachita.....	Fifth...	81	287
E. Baton Rouge.....	Sixth...	165	515
Calcasieu.....	Seventh.	73	258
Rapides.....	Eighth..	1,354	588

Dr. J. Geo. Dempsey (New Orleans): The subject of Tuberculosis in the State of Louisiana I think has been properly assigned to the Department of Public Health, but it is unfortunate that we should have such a small audience present here today.

If the people of the State fully appreciated the importance of this subject in connection with the preservation of life they would certainly manifest a greater interest in it by being present at all times when the subject is brought up for discussion. It is a matter which should be given wide publicity, for it is of national concern and has been such ever since it was first discovered as a disease.

In the year of 1922 there were 2,055 deaths throughout the State from pulmonary tuberculosis.

In 1923 there were 1,945 deaths from this same disease. Looking at the figures compiled by the Vital Statistics Department of the Louisiana State Board of Health, we see that during the year of 1923 lobar-pneumonia, broncho-pneumonia, and pneumonia undefined increased.

In other words, the decrease of pulmonary tuberculosis in 1923 is not because tuberculosis has decreased, but because many of the cases of tuberculosis developed pneumonia of some form and certificate of death given thus.

Doctor Durel is to be congratulated on his paper. Tuberculosis comes under the head of the edcational system, clinical system and institutional system. The number of cases of tuberculosis in the United States today cannot be taken care of by the tuberculosis institutions alone, so consequently we must look to the general hospital for assistance.

Prepare your hospital annexes by having special wards set aside for the treatment of this disease.

Dr. Wallace J. Durel (closing). Regarding the segregation of tuberculous patients, I must say that I have fought this matter for twenty years at every meeting of the Medical Association. The segregation of patients would lead to a state of phthisiophobia, even among the medical profession, and it is bad enough that our medical students do not come to the Charity Hospital tuberculosis wards for fear that they will contract tuberculosis. If such conditions exist among those who should be better enlightened, what can we expect of the public? Primary infection in tuberculosis occurs during childhood in a great majority of cases, therefore the separation of the smaller children from their infected parent, especially if the latter is unwilling to take proper prophylactic measures against the disease, is essential to prevent infection in such children. What appear at present important factors in the anti-tuberculosis crusade is the better instruction and education of our medical students and of the profession in the different anti-tuberculosis measures. Through the latter the education of the lay public and of the tuberculosis case will necessarily follow. We should provide means for the treatment of cases in different stages of the disease, and also means for the prevention of relapse in these cases. Our motto should be, 'Not only to make these patients well, but to keep them well." I do not think that the struggle for the eradication of tuberculosis should cease, but feel that we have only started.

TREATMENT OF PUERPERAL SEPSIS*

S. H. HAIRSTON, M. D.

MERIDIAN, MISS.

There are a great many diseases that would be far better off if they had no treatment at all. When a patient sends for us he expects us to do something and will become dissatisfied if we do nothing. The assurance that nothing can be done is not enough. We can do something but it is our good judgment that what we do is not going to do harm to the patient. It is often the desire to satisfy the minds of the family rather than do what we know to be right and what our conscience dictates.

This is especially true in treating puerperal sepsis. The patient is running a high temperature and is having a foul smelling discharge. The family are anxious and many a kind friend is suggesting some other doctor. We have all experienced the feeling of restlessness that exists in the entire household. The doctor's desire to do something to relieve the situation will often lead him to suggest the harmless douche, intra-uterine or vaginal. He has the remorse of conscience that tells him he is not doing the proper thing. To my mind the douche is the most dangerous thing he can do at that time. It is is even as bad as giving salts pills or injections in an acute abdomen.

I have only one thought to bring to you today, and I only want to call your attention to but one phase of this subject. I have nothing new to offer. If we would talk about old subjects more we would be more potent factors for good. Let us not devote too much time to new things or rare cases. If we discussed appendicitis more there

*Read before the Mississippi State Medical Association, Jackson, May 13-14, 1924.

would be a lower mortality rate, less appendicular abscesses, and a shorter convalescence. If we would discuss osteomyelitis more there would be fewer one limbed children in the country and fewer cripples. If we discussed empyema more there would be fewer lungs destroyed and fewer children going about on one flat. If we discussed puerperal sepsis more there would be less work for the surgeon, less lives lost, more pus tubes prevented, and a stronger motherhood. It behooves us to study with ever increasing interest the problems that come up in our every day practice.

You will ask the question, what are we going to do with these cases. Our first thought is to curett and remove the offending material. Under no circumstances do I enter the uterus unless there is a threatening hemorrhage, and I do it then with a pair of placenta or sponge holding forceps. I only remove the remaining membranes and then come out as quickly as possible, with the least amount of trauma to the mucosa. Again, under no circumstances do I use an intra-uterine douche and not even a vaginal douche in this condition. After the remaining membranes have been removed with as little trauma as possible, in the hemorrhage cases, I turn my attention to treating any symptoms that may arise and leave this part of it alone.

To my mind the curett is a very dangerous instrument to use in these cases. It not only traumatizes the uterus but opens new avenues for infection by opening anew the blood and lymph channels. The douche does the same thing only in a smaller way. It may carry the infection in the tubes and out in the abdomen with all its resultant effects. The infection is already inbedded in the lymph channels of the uterine wall and the perimetrium. You can readily see that the douche is worse than useless. To my mind it is about time for the curett and the uterine douch nozzle to be relegated to the museums as intruments of the prescientific age.

With the advent of radium and deep X-ray therapy and other modern methods men over the country very rarely curett for diagnosis. It is extremely dangerous to curett for diagnosis unless you are prepared to make an immediate diagnosis from frozen sections and do what ever operation necessary within ten minutes. The practice of doing a curettment, sending the specimen away to a laboratory, and if necessary operate two weeks later is a practice that ought to be discouraged. Cancer cells can be turned loose and a dangerous and fatal metastasis can take place in that length of time.

In my earlier work I tried all the methods that have been recommended from time to time. I used the curett with iodine swabs, anti-streptococcic serum, douches, intra-venous medication, etc., and they seem to be of no particular value. Some of the cases got well in spite of my treatment, some died and others had to have their tubes removed later, and still others had a period of long convalescence and were in a condition of semi-invalidism for some years there after.

After a considerable experience with all the methods of treatment I have come to the conclusion that rest in bed, plenty fresh air, and water, keep the bowels freely open, a nourshing easily digestable diet, is about all the treatment that is of value. If you will go no further than this you will find that more patients are going to get well and in a shorter length of time than by any other method of treatment. If the patient runs a high temperature, and seems prostrated, and carrying a heavy load of toxemia, plenty sugar of milk with fluids by mouth, or soda and glucose by drip, or an intravenous glucose drip, will protect the proteid molecule, counteract certain auto-intoxications, relieve cloudy swelling of the emunctory organs and thereby increasing elimation.

For the past eight years it has been my good fortune to be connected with one of the large charity hospital of the state. Here we could carry out what ever treatment we desired without any interference from the family. Our records will show and I am fully convinced that the best treatment we have at our command today is to treat the symptoms as they arise and leave the rest alone.

DISCUSSION

Dr. C. C. Hightower (Hattiesburg): If there is any class of case where you can be of great service it is in puerperal sepsis, if you begin at the right time. I want to explain my method of handling these cases. I had a case that I treated less than two months ago, a woman sent to the hospital five days after labor. She had a temperature of 104; white blood count 27,000; polys about 130; tenderness over the pelvic region. I think almost anyone would call that puerperal sepsis. There might be some distinction between puerperal ———— and puerperal sepsis ,but it is my belief that there is no such distinction, that you find puerperal ———— in the beginning stage of puerperal sepsis. I examined this woman and there was no discharge at all. I cleaned the vagina out with bichloride solution with a sponge holder, and then I took uterine dressing forceps and cleaned the cervix out thoroughly. This was all done without an anaesthetic. Then I entered

the uterine cavity with the uterine dressing forceps and there was a discharge of white, creamy pus. I do not believe in curettage, either. I took a sponge on the end of placental forceps and gently swabbed the uterus out with bichloride solution 1 to 2,000. I did nothing after that—did not leave any packs in the vagina or cervix. The next morning her temperature was down to 100 and she was feeling much better. Next night the fever went up to 104 and she had a high pulse rate and high blood count. The following morning I did the same thing, and more pus came out of the uterine cavity. I did that three times. After the second time the temperature dropped down, and after the third time it dropped and did not come up again.

I have had that experience on several occasions, and now when I have a confinement case and on about the fourth or fifth day the patient develops a high temperature and high blood count, if I can exclude malaria and other things I go into the uterus and gently clean it out thoroughly and thus prevent the infection from going deeper. It is true that puerperal sepsis goes deep into the uterine walls, but if we get it out first it will not go deep.

I do not believe in uterine douches. Two weeks ago I operated on a patient with general pelvic adhesions due to her having had uterine douches with bichloride solution about five years ago. The doctor inserted the uterine douche nozzle into the cervix and none of it came back. She had a strenuous time, of course, and it resulted in intraabdominal adhesions from the diaphragm to the bottom of the pelvis.

Dr. E. C. Parker (Gulfport): I want to differ a little on treatment. The less you do the better. My idea is to put the patient in the Fowler position, put an ice bag over the pelvic region, and let her alone. What do I accomplish by the Fowler position? Just what Doctor Hightower does when he dilates the cervix. The uterus drains all the time without disturbing the patient at all.

Dr. Albert C. Bryan (Meridian): My experience is practically the same as that of the essayist, with one exception. I have always gotten results with a big boggy uterus by keeping that uterus completely under the effect of ergot. One of the most important effects is that it closes the portals of absorption of the uterine tissue and keeps the poisons out of the body. I just want to bring out this point—that ergot is one of the greatest aids we have in keeping out poisons, and certainly in limiting absorption.

Dr. S. T. Wells (Alligator): I want to thoroughly disagree with the gentlemen in regard to the use of curettage. There is a tendency among the better informed doctors to condemn curettage. When I began practice I was afraid to touch a curette, but in country practice I found I had to use it. My practice has been largely among colored people, and of course these cases of puerperal sepsis we rarely see until they are two or three days old, sometimes a week. And my experience has been that unless there is good indication that the temperature is due to something else, the sooner you curette the better. Of course you must know that the debris is there causing the trouble, but if you go in with a dilator ,if necessary, and a dull curette and irrigate the uterus with a solution of iodine you will get results. I rarely have to go back because the temperature drops and the patient is all right. I am surprised to hear good men condemn the use of the curette. Evidently they have never practiced out in the styx. Of course, you must use some judgment with the curette and be sure you remove all the debris and keep the solution running until it comes back without debris. My experience is that the curette is not nearly so dangerous as some people would have us believe.

Dr. W. H. Scudder (Mayersville): I want to endorse what Doctor Hightower and Doctor Wells have said. I am one of the country doctors—one of the few left in the State. I want to say that if some of you city doctors lived in the country, as Doctor Wells, Dr. Hightower and I do, you would have to use a curette or dressing forceps, and you would have to use a dilator, if needed, and go in there and remove the rotten material obstructing the uterine canal. Something is in there blocking up the uterus, something which is decomposed and causing the fever and poison, and you must remove it. Why temporize by using an ice bag and placing the patient in the Fowler position? Simply a fad, a present-day fashion.

Dr. W. H. Hosey (Stringer): When you speak about the country doctor that gets me. I am led to make this remark—that it behooves us country fellows to watch for these conditions and prevent them, rather than to try to cure them. All these country men know what we have to go up against in these cases. Nine times out of ten instead of a nurse we have an old granny woman, and just as soon as we leave she puts a bandage on that patient and gives her a douche and gives her teas and things of that kind. I think most of our cases of puerperal sepsis in the country are caused by the granny woman giving the patient douches after we have left our instructions. When we go back the case is from three to five days old. Then the thing we do is to stop the procedure at once, but stay out of the uterus if we possibly can, and we generally can. We must use discretion about that. Then the old granny woman will not let the patient move out of the bed for six to nine days. The doctor must see after that himself, or the granny woman will keep the patient in bed without even changing the clothes for nine days. After we get these cases in our country practice we have to stop these douches and give the patient a chance to get well.

Dr. C. A. Sheeley (Gulfport): If we understand the condition that exists I think we will agree that drainage is the thing we want. Ten or twelve years ago I happened to be in the King County Hospital, New York. I was with a rather sensible doctor, or I took him to be. Up to that time I had used douches and irrigation and almost everything. He took me into some rather long obstetrical wards. They were the infected wards. There were probably twenty beds with women all sitting in the Fowler position. You all know that some women are too sick to put in that position. But these women were almost everyone sitting in the cobbler's position and I was much interested to know why. He said those were cases of puerperal sepsis. They came in with a temperature of 105 and up. They were at once put in this position; douches were stopped and everything but this position and strychnia. I think the Doctor was right when he said that in the modern hospital you can do many things besides putting them in the Fowler position and using ice bags. They need some help besides; they need the Murphy drip, the glucose drip; they need strychnia; they need intravenous infusions, they need every help that medical science can give.

But the essayist did not bring out the reason why he wants drainage and the reason why he cannot get drainage. It is this. The pelvis of

the woman is so constructed that the perineum is in this position (illustrates on blackboard), the uterus is in that position. The reason we put women in this position is because the cervix is dipping into a pool of pus, and until we get them in an upright position it will not run out. That principal holds good in a lot of other things. If you have a toothache, what happens? You go to a dentist and he says you have an infection in the root canal and he bores down and out comes a little gas, and the pain is gone. When you put a woman in the sitting position the uterus empties straight out. The gas pressure in the uterus is probably terrific, and as soon as she gets up it will empty out and the drainage is all you need, without douches. You can use ergot, strychnia, or anything that helps her—ice bag, sitting position, full diet and everything else that goes with it.

Dr. H. L. McKinnon (Hattiesburg). I have had very good results from staphylostrepto serum. Four or five years ago I had a staphylo-strepto infection myself and my attending physician gave me 2 cc of this serum every eight or ten hours, and the fact that I am living today is due to the effect of that serum. I have used it in a great many cases of sepsis. I stimulate the patient, keep her in a semi-sitting position and use this staphylo-strepto serum, and with plenty of elimination, and I have not lost a patient for several years. I wish you would try this serum. I know many of the doctors are prejudiced against serums, but if they were not potent I do not believe our biological laboratories would be in existence today.

Dr. D. T. Talmadge (Jackson): I wish to endorse what has been said about serum. I have used it in a good many cases with a temperature of 104, and the temperature dropped within 24 hours to 101. I believe it will pay anybody to use this serum.

Dr. E. H. Linfield (Gulfport): Along the line of treatment with serum I had the good fortune to visit Doctor Ochsner's clinic in the past week, and he told me he was using this new preparation, mercurochrome, intravenously in all cases of septicemia, whether they were severe or mild. He says he has good results. One of his assistants told me he himself is using a solution of urotone for the same purpose and is getting good results. He told me of a case of a young woman with acute tonsilitis and a very high temperature, to whom he gave three injections of urotone intravenously with immediate drop of temperature and all symptoms subsided.

Dr. L. B. Hudson (Hattiesburg): One point I want to stress and that is, that the only indication for introducing an instrument into the uterus of a patient with chills and fever following abortion or confinement, is the presence of hemorrhage. We have all seen cases subside on quinine. I recall in my interne service in Charity Hospital, in New Orleans, that Dr. Batchelor, then House Surgeon, was a great believer in quinine in these cases, claiming that even if it were not malaria, that quinine did good because it promoted leukocytosis. The point I want to make is that if a patient develops chill and fever, the only indication for going into the uterus is hemorrhage.

Dr. S. H. Hairston (closing): I have tried out all the methods mentioned, and am bound to believe that next year, when the doctor goes back to Ochsner's clinic, he will find Ochsner doing something else. I have tried mercurocrome and had bad results with it. I got a diarrhea and blood in the urine. Just at this time, when you have high fever and kidney activity lowered with a cloudy swelling, you do not want to put anything in the blood stream to increase the kidney irritation. On the other hand, you have a patient with a high temperature, the body is putting forth every effort to throw off the infection. It is working overtime to manufacture antibodies, and by throwing a lot of protein poison into the circulation, you will not benefit the patient. This is especially true if you introduce serums and vaccines at this time. To my mind the intravenous drip (Matas) of glucose solution is the best remedy we have at our command.

The only excuse we have for going into the uterus is to stop hemorrhage. I do not even put them in the Fowler position. I think if Dr. Sheeley would go back to that same hospital he would find that they are not using this position so much now, because, in this position, the chronic congestion of the pelvic organs would do more harm than the drainage obtained would do good. By laying the patient flat, you equalize the blood stream and do not have a sagging at one place more than the other. I thank you for your discussion.

HEMATURIA DUE TO UNILATERAL GLOMERULO-NEPHRITIS

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NEW ORLEANS

Hematuria due to glomerulo-nephritis is not uncommon, but severe hematuria due to unilateral glomerulo-nephritis, or to glomerulo-nephritis with arteriosclerosis of the glomeruli, is sufficiently uncommon to be of interest. This is especially true because the severity of the hemorrhage made nephrectomy advisable. In neither of these cases was the cause of hemorrhage determined until sections of the kidney tissue had been made. In one case, a preoperative diagnosis of hypernephroma was made, while, in the other, although no tubercle bacilli were found, it was thought that a tuberculous pyonephrosis was the probable explanation of the severe hemorrhage. In neither of these cases, has the pathological report been in sufficient detail to suggest the etiology of the glomerulo-nephritis, nor has it enabled, in one case at least, the exclusion of a focal embolic glomerulo-nephritis as the cause of the hematuria. Gross hematuria in focal embolic glomerulo-nephritis is even more rare than in the acute, subacute, or chronic glomerulo-nephritis and would not be less interesting if it were the underlying condition responsible for the hemorrhage.

CASE 1.

J. P. L.—Age 51, widower, packer by occupation. Referred by Dr. J. W. A. Smith, August 7, 1922. The past history was negative for serious illness. There had been a neisserian infection 20

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Case 1.

years before. The infection lasted five or six months. There were no complication. Syphilis was denied. There was no history of operations except cauterization of a rodent ulcer of the nose some years back. The family history was negative for cancer, tuberculosis, or rheumatism.

Present complaint.—There has been profuse bloody urination for three days. There was no history of previous hematuria. There was no frequency, urgency, or tenesmus. The patient did not urinate at night and only two or three times during the day. The bowels were regular.

Examination revealed a thin, pale, and profoundly anemic male.

Head was negative except for a few bad teeth.

Neck negative.

Chest—Heart—roughened first sound with systolic murmur .

No enlargement.

Lungs—Increased breath sounds over left apex and both infraclavicular spaces; fine crepitant rales over scapular region on the left side.

Abdomen—no masses or organs palpable.

Wassermann—negative.

Urine—bloody, otherwise negative. No tubercle bacilli found.

Cystoscopy was attempted but the patient was so weak that the examination had to be discontinued before the source of hemorrhage could be ascertained. The patient was advised to go to the hospital for transfusion and observation, but declined. He was sent home, was put to bed and except for rest, refused all other treatment.

Seven months later he again consulted me. Although he had regained is strength, he had bled intermittently and for the last three days had been bleeding profusely. At this time, March 25, 1923, his red cell count was 3,000,000, his hemoglobin 70 per cent.

Blood pressure 100-80.

Cystoscopy—bladder negative. Blood was seen to come from the right ureter. No. 8 catheters were introduced to the pelves, there was no obstruction on either side. The secretion from the right kidney looked like pure blood and was negative except for blood. No tubercule bacilli found.

Urine from the left kidney was negative except for two casts found after examining several fields.

The X-Ray for calculi was negative.

Pyelogram and ureterogram showed on the left side—Normal pelvis, regular and small (Cap. 5 c.c.) The kidney outline was normal and the position good.

The right kidney seemed to be slightly enlarged, the pelvis was slightly larger than the left, seemed to be slightly dilated. (Capacity 7 c.c.). The right ureter was raised, turned, and pushed towards the vertebral column and was somewhat dilated from the third lumbar vertebra up.

A probable diagnosis of tumor of the lower pole of the kidney was made. (Hypernephroma?)

A functional test of the kidneys, done three days later, showed the dye (Phenolsulphonephthalein) to appear from the left kidney in 4 1-2 minutes, the output for fifteen minutes was 15 per cent. From the right kidney no dye could be estimated because of the still severe hematuria with clothing and obstruction of the catheter.

On April 3, 1923, a nephrectomy was done under gas. An oblique incision was made and the kidney delivered. The kidney was not much enlarged, but the lower pole was rounded and almost twice the size of the upper pole, the ureter was raised and displaced by the lower pole. The pedicle was long. The pedicle was lighted with No. 3 chromic. The kidney and about five inches of ureter were removed. The muscles and fascia were approximated with No. 2 chromic. No. 15 silk was used for the skin. Time of operation 20 minutes. Pulse, on leaving table, 90. General condition excellent.

On sectioning, the kidney did not show any evidence of tumor or of tuberculosis and it was thought that a glomerulo-nephritis was responsible for the hematuria.

The convalescence was absolutely normal. The patient left the hospital on the 13th day, April 16, 1923.

In March, 1924, the patient reported for examination and was found to have had no more hemorrhage. His color was good, he had "gained fifteen pounds" and was rolling cotton bales on the river front for a living.

The pathological report by Dr. D'Aunoy follows:

"J. P. L., white, male, 51, Ward 11, Bed 4.

Kidney is about normal in size weighing 180 grams. Its capsule strips with slight difficulty; its cortex bears a ratio of about 1-4 to the medulla; petechial hemorrhages are to be seen throughout the cortex, and the pyramids are congested.

Final corrected microscopic diagnosis:—the glomeruli, here and there, show filling of Bowman's capsule with products of acute inflammation. The capillary whorl within the glomeruli are congested and in some rare instances there is intraglomerular hemorrhage. The tubules are distended and their lining epithelium swollen and granular. Tube casts are evident."

"Glomerulo-nephritis."

CASE 2.

Mrs. E. W.—Age 29, married.

Referred by Dr. Robert Bernhard for hematuria on August 15, 1923.

Past history:—menstruated at 16, periods 28 day type regular, flow three days.

Has had one child and one miscarriage.

Has had no serious illness and no operations except curettage.

Her mother died of tuberculosis ("Galloping consumption").

There was no history of cancer or rheumatism in the family.

Present history:—she complained of hematuria for three week. There was no history of vesical disturbance or previous hemorrhage.

Examination:—Pale, anemic female, who had evidently lost considerable weight.

Head, neck and chest are negative.

Abdomen—no organs or masses palpable.

Pelvis—uterus in good position. Tubes and ovaries negative for abnormalities.

Blood pressure 118-80.

Urine bloody. Microscopic examination showed blood, pus, B. Coli, and a few streptococci. Catheterized specimen for tubercle bacilli was negative. Cystoscopy the bladder was negative except for trabeculations. The ureteral orifices were normally situated and nomal in appearance. Near the ostium of the right ureter there was a small yellowish white elevation, possibly a tubercle. From the right ureteral orifice bloody urine was observed. The ureters were readily catheterized to the pelvis. There was no obstruction to No. 6 catheters.

The urine from the right kidney was bloody and showed on microscopic examination of the sediment, besides blood, much pus, B. Coli and a few streptococci. Examination for tubercle bacilli was negative.

The uterine from the left kidney was clear. The sediment showed a few leucocytes, a few red blood cells (probably traumatic) and an occasional colon bacillus. There were no casts. Examination for tubercle bacilli was negative.

The pelvis of the right kidney was washed with 1-2 per cent nitrate of silver.

During the next six days the hematuria persisted. The patient was again examined cystoscopically with the same results.

X-Rays for calculi were negative.

Pyelogram and ureterograms:

Right—pyonephrosis. Right ureter negative, except for displacement towards vertebral column, which it overlapped at the fourth and fifth lumbar vertebrae. The pelvic outline was not regular and the pelvis could not be made out.

Left pelvis narrow but normal. Calices normal except for upper calyx which was blunted slightly. The left ureter showed slight dilatation.

The following week a differential test (Phenolsulphonephthalein) intravenously, gave the following results:

Left kidney dye appeared in 3 1-2 minutes and 10 per cent was excreted in 15 minutes. From the right kidney no dye could be detected because of the very bloody urine.

In spite of pelvic lavage on various occasions, from August 15th to August 31st, the profuse hemorrhage had continued, now for five weeks, and nephrectomy was advised and accepted.

Nephrectomy—gas anesthesia—Mayo incision.

The kidney was small and not adherent. It was dark red in color, the surface was irregular. The pedicle was short and after being doubly clamped, and the kidney removed, it was transfixed and ligated with No. 3 chromic. The muscles and fascia were approximated with No. 2 chromic. Silkworm was used for the skin. Time of operation forty-five minutes.

General condition excellent.

On sectioning the kidney there was apparent a marked fibrosis of the calices with marked dilatation of the minor calices, extending to within from

Case 2.

1-4 to 1-8 of an inch of the surface. The surface of the cavities were granular, there were some erosions of the pyramidal tips. There were occasional hemorrhagic extravasations. There was no evidence of tuberculosis.

The convalescence was uneventful, the patient leaving the hospital on the 13th day. Five months after, February 20, 1924, patient has had no hematuria.

Dr. Wm. Harris' report on this kidney was as follows:

"Mrs. W., Room 5 B., September 23, 1923. This kidney is somewhat smaller than normal. It is of a reddish-brown color and the surface is somewhat irregular. Upon sectioning, the pelvis is found dilated and some erosions of the pyramidal tips has occurred. Evidence of small hemorrhagic extravasations are seen miscroscopically, here and there, through the organ.

Microscopic:—sections through the eroded pyramidal tips show the edges to present scattered polymorphonuclear neutrophiles but very numerous lymphoid cells and a few plasma cells are massed beyond these and evidences of connective tissue hyperplasia. Throughout the organ, sections show many scattered masses of lymphoid cell accumulations, with a few plasma cells, many of which masses occur in the vicinity of the Malpighian bodies. The vessel walls, as a whole, are thickened and many vessels are markedly congested and in some areas hemorrhagic extravasation has occurred —a great many of the glomerular tufts present sclerosis with complete obliteration of the capillaries. The connective tissue element of the organ is greatly increased in some portions. The epithelium of the tubules presents granular degeneration and in many of the lumina of the tubules, cast formation is found.

Diagnosis—Pyonephrosis with marked chronic inflammation of the kidney and marked glomerular sclerosis."

To me , the picture is very suggestive of a glomerulo-nephritis of the endarteritic type.

In studying these cases, there are notwithstanding shortcomings, many points of interest that present themselves, clinical-

ly and pathologically. In the first case, the anatomical conformation of the lower pole of the kidney caused a displacement of the ureter and a dilatation of its upper segment. In the presence of a very severe hematuria on the same side, which was not otherwise accounted for, an erroneous diagnosis of neoplasm was made.

In glomerulo-nephritis, as in neoplastic disease of the kidney, bleeding has been observed to be intermittent. However, in glomerulo-nephritis, the bleeding is usually bilateral, less severe, and accompanied by evidences of nephritis. It is rare, judging by the available literature, to have severe gross unilateral hematuria due to glomerulo-nephritis.

In case 2, although a marked infection of the kidney was present, there was neither evidence of sepsis, probably due to good drainage from the kidney, nor even symptoms referable to the bladder which attracted the patient's attention to her condition, until the occurrence of severe bleeding. That pyonephrosis may occasionally be present, the patient, notwithstanding, enjoying good health, until some such symptom as hematuria, or the discovery of the condition during the course of a routine examination, has been the experience of many urologists.

In both cases reported there was a displacement of the ureter. This is not uncommonly found in neoplastic disease of the kidney. This displacement alone is of no significance, as we have observed it in many cases in which there were no symptoms suggestive of neoplasm and which at operation showed no neoplasm.

In neither case were there symptoms of nephritis and under the circumstances we would not expect any. The unaffected glomeruli and their corresponding tubules, as well as the glomeruli and their tubules in the opposite kidney being sufficient for proper elimination. This is evidenced, in part at least, by the functional test of the unaffected kidney.

That the anemia in these cases was due to loss of blood and not to a hydremia is borne out by the appearance and the general condition of the patients several months after operation, and, in one of the cases, during the interval between hemorrhages.

The source of hemorrhage in Case 1 was apparently intra-glomerular, while in Case 2, the hemorrhage was apparently due to congestion and rupture of intertubular capillaries.

Conclusions

While no conclusions can be drawn from the study of two cases, and still less from the insufficient study of the kidney tissue which was available, it would be interesting to know, whether the infection of the kidney in Case 2 had a direct bearing on the nephritis, or whether the vascular changes in the glomeruli had their origin in an ischemia due to pressure by the inflammatory products without the Malpighian bodies.

The fact that a gross unilateral hemorrhage can be due to glomerulo-nephritis would suggest that in at least some of our undiagnosed renal hematurias the cause is to be found in a localized glomerulo-nephritis, so limited in its extent, as to defy detection by blood chemistry, renal functional tests, urinalysis, or clinical evidence of nephritis.

Although nephrectomy is indicated for severe hematuria, when other means have failed, it should be remembered that in glomerulo-nephritis hemorrhages are usually intermittent and that after ceasing they may not recur as gross hemorrhages for long periods, if at all. On the other hand, even in the face of a persistent, severe unilateral hematuria, if there is evidence of nephritis indicated by urinary changes in the opposite kidney, increase in blood pressure, aedema, changes in the blood and evidence of uremia, nephrectomy in contra-indicated.

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TUBERCULOSIS IN INFANCY AND EARLY CHILDHOOD.*

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The more recent study and research in tuberculosis would more and more justify the opinion or belief that it is a disease of

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early life. Some authorities claim that from 60 to 85 per cent of all tuberculosis is contracted before the sixteenth year. Others claim the high percentage of occurrence, but that the infection takes place before the eleventh year. The fact is, the younger the child, the greater the susceptibility to tuberculosis, and exposure in an infant under twelve months of age, for any length of time is almost certain to be followed by the development of some form of tuberculosis.

Examination of the anterior and posterior cervical glands will show surprisingly high percentage of enlarged glands, and while there are many conditions which will cause these glands to become enlarged, yet the persistence of chronically enlarged cervical glands strongly indicates the presence of tubercular infection. Hamburger (1) states that 95 per cent of these chronically enlarged glands are tubercular. Other authorities state that from 60 to 85 per cent are infected.

Wahl and Gerstenberger (2) in a report on tuberculin tests made on the exposed, suspicious, or actively tuberculous individuals in the babies dispensary of the Cleveland Hospital from 1907 to 1921, show 54 per cent males, and 61 per cent females, giving a positive von-pirquet reaction. Also that 44 per cent of positive cases gave a definite history of contact. Further, that cases giving a history of two or more exposures show a higher percentage of infection, than those with one exposure.

Gordon and Brown (3) quoting Park and Krumveide point out that the bovine type of bacillus was the infecting organism in 11 per cent of all their cases, and that 90 per cent of these cases were under sixteen years of age.

The Journal of the A. M. A. (4) reports 500 cases from the ages of birth to eight years, from three hundred and ten tuberculous homes, examined by the von-pirquet test, the result of the examination shows a high percentage of positive reactions, over 60 per cent, and the point was particularly stressed that in order to control the disease the child must be isolated from the disease, or the source of infection must be removed from the child.

Taylor and Moorman (5) analyzing 223 cases under sixteen years of age with reference to tuberculosis find that 119 gave a history of direct contact. Of these, 53.8 per cent showed a heavy infection, 36.2 per cent showed a moderate infection, and 10.8 per cent showed a light infection. In other words of the total 119 cases who gave a history of contact, 100 per cent showed some degree of tubercular infection.

I wish here to report the number of tuberculous cases coming through my office during the greater part of the past two years. Of these cases, 106 under five years of age presented sufficient symptoms such as enlarged cervical glands, secondary anemia, increased lymphocytosis, under weight, or gave a history of exposure sufficient to justify a von-pirquet test, as well as other special tests for tuberculosis. In the first group, 18 or 50 per cent of those examined gave a positive tuberculin reaction. This represents a total of 6.6 per cent of those coming through the office during that period, but does not include those positive cases over five years of age. In the second group of 70, 30, or 42.8 per cent gave a positive reaction. These findings are lower than the reports of a majority of writers, although Morse (6) states that in 10,000 examinations he only found 100 positive, which is 1 per cent of cases examined. That there is some fault in his method is probable by the preponderance of evidence to the contrary.

Relative to the source of infection, it is admitted that 10 to 25 per cent of infections are of the bovine type, and we are justified in the conclusion that this infection takes place through the milk supply. This percentage ought to materially decrease under the rigid enforcement of the law preventing the sale of milk from tuberculous cows, and educating the mothers to the danger of using such milk.

In the human type in children, on account of the involvement being largely glandular, the infection takes place through the lymphoid tissue of the pharynx, and upper respiratory tract, and is carried to the cervical and tracheo-bronchial glands.

Tinker (7) states that "In childhood we seldom find a true disease of the lung tissue, tuberculosis for the most part, taking the form of a glandular disease." He also points out that nasopharyngeal disease producing a nasal obstruction is a far more probable source of infection of lung tissue, than that taking place from the lung tissue proper to the bronchial glands. Infants under 1 year of age are very susceptible to tubercular meningitis. This infection takes place either through the lymphatics, following the olfactory nerve sheaths, or through the general circulation, being taken up through the digestive tract.

W. V. Mullin (8) in writing on "Tuber-

ercles in the tonsils," states that in three cases showing tubercular, cervical adenitis, two presented tuberculous tonsils or adenoids. Also in quoting case reports from the Hopkins Hospital, he states that in those cases showing definite tubercular infection of the cervical glands, one-half, or 50 per cent of tonsils were found to be tuberculous. Further, an analysis of the tuberculous tonsils showed the cervical glands to be involved in fifty per cent of all cases. In quoting Mullin further, in 400 consecutive tonsillectomies of his own, 4.25 per cent showed tuberculosis of the tonsil and adenoids in various combinations. This statement is of particular interest at the present time in view of the variance of opinion as to the actual existence of tuberculosis in the tonsil. By way of explanation however, the diagnosis was made, not by isolating the tubercle bacillus, but by the presence of large mononuclear cells, accompanied by giant cells found in the typical tubercle.

Unless children are examined for tuberculosis with the view of eliminating this disease, the diagnosis in many cases will be over looked. Indeed, I am surprised at the high incidence rate in children who show no active signs of tubercular infection, further than a secondary anemia, certain blood changes, under-weight, and other signs of backward physical development. An important thing to consider in the diagnosis is, history of exposure at any time since birth, either through occupancy of a house previously occupied by tuberculous people, or contact with infected persons.

Since a large per cent of enlarged cervical glands are considered tubercular, the presence of such enlarged glands are an important thing to consider in the diagnosis. The blood examination is helpful only in a confirmatory way. If the disease is of one or more years duration, the complement fixation test is very helpful. The blood picture is that of any secondary anemia, that is low hemoglobin, relative lymphocytosis, increase in eosinophiles, and usually a change in the red blood cells. The tuberclin test is of the greatest value in children under five years of age, and of partial value up to ten years.

Duzar (9) describes the colloidal flocculation test of the blood according to the Daranyi method which is practically pathognomonic of tuberculosis, and is considered one of the most dependable tests for tuberculosis in early life. This test is easily made by any well equipped laboratory, and is as follows: The Daranyi test is made with 0.2 c.c of the serum to be examined, added to 1.1 c.c. of 96 per cent alcohol diluted with 2 per cent sodium chloride solution (4.1 c.c. of the saline solution to each 1. c.c of the alcohol). The mixture is well shaken and heated in the water bath at 60 C. for twenty minutes. The tubes are then kept slanting at room temperature, against a dark background, and are inspected without disturbing. When flocculation occurs at the half of first hour, this is a four plus reaction. The negative reaction is recorded at the twenty-fourth hour if no flocculation has occured. It is important to titrate the alcohol dilution each time with control serums.

Physical signs are of much importance, and used in close conjunction with the X-ray, often confirm the diagnosis. D'Espine's sign is of value, and indicate enlarged bronchial glands. The course of the disease is essentially chronic in a high percentage of cases. During the past year I saw only three cases of frank pulmonary involvement, and these were not reported in my cases as they were over five years of age.

Glandular tuberculosis tends to symptomatic recovery, and more than likely develops a comparative immunity against the disease in later life. In the matter of treatment, diet, sunshine, daily rest periods, cod liver oil, calcium lactate, and the removal of any focal infection are of the prime importane. More recently the introduction of Ultra Violet Ray Therapy, or Quartz Lamp, gives promise of gratifying results. I am able to report ten cases treated with the Ultra Violet Ray during the past few months, in which without exception, the improvement was marked. This was shown principally in the increase of weight, rise of hemoglobin, and general systemic improvement. One point in particular I would mention is the rapid rise in hemoglobin. I have seen it repeatedly go up from twelve to fifteen points in three weeks time.

Conclusions

First: Tuberculosis is essentially a disease of infancy and early childhood, and a very large percentage, probably 90 per cent of all infection takes place by the fifth year.

Second: The younger the individual, the higher the susceptibility to tuberculosis.

Third: Any child who is 20 or 30 per

cent underweight, with a blood picture of secondary anemia, and a history of exposure to tuberculosis, should be thoroughly examined for tuberculosis.

Fourth: The higher rate of tuberculosis in infancy and early childhood, should be made a matter of special study by the general practitioner, as it is a disease in which prevention and early recognition will go far toward stamping out the disease.

Fifth: Contrary to the opinion of the early writers on this subject, a high percentage of these cases make a symptomatic recovery, and as far as we know possess an immunity throughout life, unless this resistance is undermined by some serious inter-current infection.

Sixth: Removal of focal infection, diet, regular habits, sleep, sunshine, are the known factors in treatment.

Seventh: The Ultra Violet Ray Lamp is of the greatest value in starting the patient toward recovery in those cases, who by reason of previous illness have a low resistance.

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DISCUSSION.

Dr. Riley W. Burnett (D'Lo): The point I wish especially to mention is the prevention of tuberculosis in children. I believe if our health officials in the country and city would go into the schools and make a survey and find those children who are at least 3 per cent underweight, and put them into a class and bring their weight up to normal they would do a great deal towards preventing tuberculosis in Mississippi. The children of this generation are the ones who will give their infection to the next.

Dr. Geo. E. Adkins (Jackson): The portal of entry of tuberculosis and its time of entry to the human body is one of the things that interest the medical profession very vitally.

Dr. Womack well stated that tuberculosis of the brain and spinal cord must enter through the naso-pharynx, or to make it a little more specific, it must enter through the cribiform plate of the ethmoid bone, traveling along the course of the olfactory nerves. Those cases of tubercular adenitis very likely get their infection through the lymph channels leading from the naso-pharynx, and it is from this source of infection that we have the characteristic post-cervical involvement due to the fact that the lymphatics from the naso-pharynx drain into the post-cervical glands (those back of the sterno-mastoid muscle).

The theory of tuberculosis entering any part of the human system through the tonsil, to my mind has been well exploded. In a record of eighteen hundred cases, one thousand of which were worked by one man, and eight hundred by another, both independently and in separate laboratories, a tubercular bacillus was found only one time.

I do not know of any cases of tuberculosis involving the glands of the neck anterior to the sternomastoid.

That tuberculosis can reach the lung, and does reach it through the respiratory tract, none of us can question.

As to the time when the human being becomes infected with tuberculosis I must confess that I am a convert to the belief that it is practically all (if not all indeed) contracted early in life, and that some of the cases are not manifested until later in life.

Dr. C. C. Buchanan (Hattiesburg): Having examined a number of children in public health work in the State of Mississippi, and quite a few thousands recently in Forest County, and having had a cattle test in Forest County, I am glad to report to your convention that in the cattle test we were only able to find six cows in Forest County that responded to the test for tuberculosis.

We have been talking about bovine tuberculosis. That is rather an exploded idea down there. I was very much interested in listening to the explanation of how these children contract tuberculosis. I have noticed, as Doctor Adkins says, that the lymphatics taking up these poisons of course are posterior to the sternomastoid muscle, and not from the tonsils and throat.

We are preparing some statistics in Forest County that we hope will be ready some time for the Mississippi State Medical Society. Last year we picked up 238 children that had tonsils and adenoids removed; 82 children had defects in vision corrected, and over 1,200 children had teeth filled. In the past two weeks we examined 273 children in Hattiesburg, and only 9 needed a dentist. I simply mention this because it shows you that as public health workers we are trying, with your co-operation, to accomplish something, and we have that in Hattiesburg. I want to ask you to have patience with the public health workers. We make many mistakes, but our hearts are in the work, and we know of no greater or grander work in the world except that of spreading the Gospel. Let us get together in this work in this grand old Magnolia State.

Dr. Richard C. Bunting (Memphis, Tenn.): I would like to call your attention to a condition

sometimes seen in tuberculous patients in which the outcome is practically hopeless. I have reference to tuberculous meningitis. We do see it, not often, fortunately, because the end result means the undertaker. When we see these cases, often the initial lesion is not plain and we perplex ourselves as to what we have confronting us. If there is anything that is significant in tuberculous meningitis, it is the multiplicity of cranial symptoms, ranging anywhere from cranial nerve palsies to involvement of the pyramidal tracts. These patients are clinically sick; they are losing weight fast; they may show hemiplegia, they usually show cranial nerve palsy or palsies, and sometimes we are in doubt as to the diagnosis; and the diagnosis is important because we must know what to tell the family. Our textbooks tell us that drainage of the subarachnoid sac, centrifuging the fluid, and making a smear, will often show the tubercle bacillus. I have seen about seventeen cases of tubercular meningitis, and have had the best cooperation of the laboratories in searching for the tubercule bacillus in the fluids, yet we have not been so fortunate to find the bacillus in any case. The spinal fluid is usually of the usual water color. However, it may be cloudy, slightly red, or even of a yellowish tinge. With the cranial nerve palsies, and a spinal fluid showing a high cell count, usually lymphocytes, though not necessarily so, because we sometimes find the polynuclears, we are able to give the diagnosis of tuberculous meningitis. Perhaps I regard the high cell count the most important of the many clinical signs.

Dr. N. C. Womack (closing): Tuberculosis is now admitted to be a disease of infancy in early life, and it is a big problem. Tuberculosis is an infectious disease in the same way that measles is, and if an infant is exposed even slightly, it stands a good chance to get the disease.

I appreciate Dr. Adkins remarks because he is well grounded in anatomy, and I will therefore not argue the point wtih him, but I do think that many more tubercular infections take place through the tonsils than most of us at present believe.

I was glad to hear Dr. Bunting's discussion as to tuberculous meningitis. I wish to report a case in an infant twelve months of age that gave no history of exposure except that it was with an aunt two weeks after the mother came from the hospital. Three months later this aunt developed tuberculosis, and when the baby was six months old it developed tubercular meningitis. Its only known exposure was the two weeks it was cared for by this aunt immediately after coming home from the hospital. The baby had all the classical symptoms of tubercular meningitis, the organism being demonstrated in the spinal fluid. The spinal fluid was daily taken off and pure oxygen put in under rather high pressure until there was bulging of the anterior fontanelle. Prior to each operation the baby would lie in a stupor, eyes crossed, would not nurse, etc. Immediately after the drain and insertion of oxygen the baby would apparently be well. Would smile, nurse, notice the surroundings, and for a while would appear as a normal baby. This went on for thirty-three days. The baby died suddenly from respiratory paralysis.

The point I wish to especially emphasize in the paper is that tuberculosis is essentially a disease of infancy and early life. That the younger the individual, the more susceptible they are to the disease, and that prevention is the principal point to be considered in its treatment.

SPLENECTOMY IN PURPURA*

I. I. LEMANN, M. D.
and
ISIDORE COHN, M. D.
NEW ORLEANS.

The brilliant results of splenectomy for the relief and control of hemorrhage in purpura hemorrhagica during the past few years have stimulated a fresh investigation of this puzzling malady and seem to hold forth substantial hope for its cure in properly selected cases. It has been our privilege to witness such a prompt control of the phenomena of the disease in an alarming purpura and to follow the continued and progressive improvement of our patient during the year that has elapsed since the splenectomy.

Much confusion formerly existed in the field of the hemorrhagic diseases. Some of this confusion has been cleared up by classifications based variously upon etiolobical, pathogenetic ,and clinical considerations, and we can now realize that widely differing diseases signalized by the tendency to bleeding were easily taken for one another. Thanks to the studies of the process of coagulation we are in a position to differentiate between a continued hemorrhage following traumatism no matter how slight and dependent upon the pathological disturbances of these processes of coagulation and a spontaneous hemorrhage from mucous membrane or into the skin or serous membranes or internal organs without demonstrable disturbances of blood coagulation. Clinical as well as laboratory observations have served to set off diseases of the type of scurvy as definite entities producted by deprivation of essential vitamins. Another interesting, apparently distinct group, but still mysterious from the point of view of etiology and pathogenesis, embraces hemorrhagic states associated with angioneurotic edema and joint phenomena. Spontaneous hemorrhage into the skin and from mucous membranes occur frequently in the course of infectious diseases (measles, small pox) septicemias (ulcerative endocarditis) focal infections, (tonsillitis); this has been designated symptomatic purpura. Two other groups of symptomatic purpura are to be noted: the first observed in cachetic and asthenic states and disturbances of metabolism (old age, arterio-sclerosis, nephritis, diabetes),

*Read before Louisiana State Medical Society, Opelousas, April 22, 1924.

the second in relation with blood dyscrasias, leukemia, pernicious anemia, Banti's disease, aleukia hemorrhagica, aplastic anemia, (Benzol posoning). The residue of hemorrhagic conditions may be designated idiopathic, or at least crytogenetic, for this group is not associated with any other symptoms or disease and is without known cause. Some authors have divided the idiopathic purpuras still further into purpura simplex and purpura hemorrhagica; the former being manifest only by the spontaneous hemorrhages into the skin; the latter having as its chief phenomenon bleedings from mucous membranes in addition to the skin lesions. We shall return later to remark upon this point of differentiation. Your attention is now directed particularly to purpura hemorrhagica idiopathica, the disease which Werlhoff described as early as 1775. In 1887 Denys[8] observed in such a case an entire absence of blood platelets which had previously been described by Hayem[7] and Bizzozero. Practically no significance was attributed to this observation until recent years, but within the last two decades abundant proof of marked reduction in the platelets in purpura hemorrhagica has been offered by many observers. The platelets in normal blood are from 200,000 to 300,000, per cubic millimeter, and it has been shown that hemorrhages occur when their number fall below 40,000. Furthermore it has been possible experimentally to reduce the number of the platelets without affecting the other elements of the blood by the injection of anti-platelet serum and thus artifically to reproduce the skin lesion of purpura. This anti-platelet serum was obtained by the repeated injection into animals of alien blood platelets[6]. It is worthy of note, also, that in the cases of blood dyscrasias where purpura has occurred, there has been a notable reduction of the platelets. This reduction of the platelets, then, has come to be regarded as the characteristic which distinguishes certain of the hemorrhagic diseases. It has been shown that these platelets or thrombocytes contain thromboplastic substance which is concerned in the normal process of coagulation, but it is evident that purpura is not dependent upon the disturbance of this particular function, for in patients with purpura there is no delay of coagulation and in these patients the hemorrhages occur spontaneously and without trauma or open lesion, into the tissues and from the mucous membrances. In contrast with the normal coagulation time of the blood of these patients is the prolonged bleeding time and the non-retractile clot. The blood of the hemophiliac patient on the other hand has a prolonged time, but a normally retractile clot, once it is formed. Just how the platelets function in vivo, to prevent the diapedesis of the other formed elements, and how the reduction of platelets permits such a diapedesis is still unexplained. It has been suggested that the platelets adhere to the walls of capillaries and form plugs, as it were ,to close the stomata through which in their absence the corpuscles pass out into the tissues. Incidentally it should be pointed out that an explanation of purpura without thrombocytopenia (blood-platelet poverty) has been that the capillary walls have been affected and it has been proposed to divide purpura from a pathogenetic point of view into: (a) hematogenetic, (b) vaso-genetic. Whatever may be the manner in which platelets act in vivo, their number represents, it must be agreed index to the hemorrhagic process in certain purpuras, and we must inquire into their origin and into the possible ways in which their number may be affected, Wright's[10] explanation of the origin of platelets from the megakaryocytes of the bone marrow is generally accepted, though Foa[9] remarks that it is not easily confirmed. Blood platelet poverty may be due to diminished production or increased destruction of those normally formed. The former conception is that of Frank[1] and Glanzmann[2] and has been designated by the former "essential thrombopenia" or "thrombocytopenia." It finds an analogy and some confirmation in the myelotoxic process of blood dyscrasias, where the blood platelet and their progeners, the megakaryocytes, suffer as well as the red and white corpuscles (notably in benzol poisoning, Banti's disease, aplastic anemia). The increased destruction of normally formed platelets (thrombocytolysis) is the conception of Kaznelson[3]. We have, then, spread before us the picture of the hemorrhagic purpuras from the pathogenetic view point. We revert now to the differentiation between purpura simplex and purpura hemorrhagica, to remark that it is difficult any longer to accede to this division, for there are cases of purpura simplex with thrombocytopenia, of which ours is one although all true cases of purpura hemorrhagica show the low platelet count. Furthermore, there is no good reason to differentiate between the hemorrhage on the basis of their site, whether they proceed into the skin, from mucous membranes, or

elsewhere. Clinically both purpura hemorrhagica and purpura simplex exhibit corresponding types; acute, chronic, and recurrent. There are many cases which last through years and the patients remain in good health otherwise. On the other hand, other patients suffer such frequent and severe hemorrhages that they finally become so weak and anemic that the disease not only makes them chronic invalids, but even threatens life. Such patients have been transfused with blood from proper donors and have, in some instances, been benefited, but usually only in a fleeting fashion. The new platelets furnished by the donor's blood have a very limited life and the platelet count soon falls and the former symptoms return. In 1916 Kazenelson[3] suggested splenectomy both because he had noted a splenic enlargement in purpura hemorrhagica, and because of theoretical considerations as to thromobocytes after radiation of the spleen. He has reported two splenectomies with brilliant results and others have since put on record, about a dozen cases with almost uniformly satisfactory, sometimes spectacular results. The universal report is that the platelet count from a few hundred or a few thousand before operation, rises very markedly by many thousands within an hour after the operation, and usually reaches the normal within a few days. Subsequently, however, many cases have shown a fall in the count sometimes down to and below the critical point of 40,000, *but without return of the hemorrhages.* Not only Kaznelson, but also Brill and Rosenthal[4] and Giffen[5] have observed upon the operating table immediately upon the clamping of the splenic pedicle a cessation of the bleeding. Brill, for example, described graphically how the oozing wound which gave the operator grave concern became dry at once when the splenic pedicle has been clamped.

There remains much, therefore, to be explained.

I. How do the platelets function in vivo? This must be apart from their thrombo plastic function.

II. What is the function of the spleen with regard to platelets? The assumption of a myeloxic or even marrow inhibiting action will not account for the immediate cessation of hemorrhage after the clamping of the splenic pedicle. The theory of thrombocytolysis by the diseased spleen is not much more satisfactory in this regard, for the action is apparently too prompt. The observation of the clinicians would seem to have all the validity of a laboratory experiment.

III. Are the thrombocytes (platelets) concerned directly in the process or is their number merely an index of other factors?

IV. Why may the platelet count after initial rise following splenectomy fall to critical limits without further hemorrhages occurring?

What ever may be our views on these points, it cannot be gainsaid that splenectomy has now been shown repeatedly to be a life saving procedure. It is for this reason that we have desired to bring the matter to your attention and to relate details of the satisfactory progress of our patient.

D.— F.—

Age 5 1-2 years.

No history of family bleeding.

No infectious diseases except Grippe. Congenital club foot. Operated at 4 months of age, (Lorenz method) by Dr. Fraunethal, of New York; at 13 months by Dr. Jacobs of Chicago. Was always a difficult child to feed; nervous. Tonsillectomy by Dr. Haspel in January, 1923. Has improved greatly since.

Present Illness.

First seen about the 25th of February, 1923, when a few brownish marks and purplish marks were noticed on the lower arm and below the elbow wrist and legs, varying in size from a pea to a quarter.

At first it was thought that they were bruises, *though the child insisted that he had not fallen and that he had not hurt himself. Some new spots were noticed before the child dressed, there having been no opportunity for injury.*

He was first brought under observation because of a rather large ecchymotic area in the sacral region. Within a few hours this area increased in size. He was kept under observation a few days during which time he was given calcium lacate.

On March 8, 1923, several large purplish areas developed, one over the left iliac region and one large spot in the perineum, and there was a generalized spotting of the child's body. The new spots presented a light blue color in the center, older spots had a greenish hue, and as time went on there was a brownish pigmentation of the periphery.

Some of these areas had a doughy feeling.

Large areas were noted as follows:

Left forearm posterior surface—4 cm.

Right forearm anterior surface—3-4 cm.

Right hip external surface—6 cm.

Sacral region—4 cm. old.

Left hip external surface—6 cm. (dark blue).

First transfusion. March 9, 1923.

Blood transfusion. Donor, father; type 4. Child, type 2.

250 ccs. citrated with 20 ccs. of 2 per cent Sodium Citrate. He was allowed to go home the next day.

The spots began to fade rapidly and no new spots were noted until about the 30th of March when the father noticed several small brownish spots.

On April 3rd a number of small purplish spots were noticed. On April 4th a second transfusion was done. 200 c.c of citrated blood was given.

April 14th. New spots appeared. A third transfusion was given of 250 c.c. of citrated blood.

The patient was kept under observation and given gelatine and calcium lactate, but in spite of this on May 4th, several hemorrhagic areas were noted. He then returned to the hospital for transfusion of 300 c.c. citrated blood. *On the 3rd of June, the patient was admitted to the hospital for splenectomy.*

Physical Eximation, June 3rd, 1923.

Fairly well nourished, though slightly anemic child.

There are a few pale brownish spots noted over the extremities. Near the left hip there is a large faded, pigmented area of the original large lesion which was noted at the first transfusion.

Head and Neck.

	[1] [2] [3] 3- 8-23	[4] 41-5-23	[5] 6-3-23	6-13-23	7-2-23	7-25-23	10-30-23	1-17-24
Hemoglobin			55	80				
Red Blood Corpuscles ..	3,760,000	4,820,000	3,780,000	4,950,000	4,730,000	5,060,000	4,650,000	4,740,000
White Blood Corpuscles..	7,500	6,000	6,500	17,500	8,700	9,500		10,000
Polymorphonuclears	62	46	57	56				61 1-3
Small Mononuclears.....	31	48	29	36				30 2-5
Large Mononuclears....	5	5	13	7				7
Eosinophiles	2		1	1				1
Platelets.....	only	occasional			400,000	145,000	232,000	140,000
Coagulation Time[6].....	3½ in.		4 min.					
Bleeding Time			5					

[1]First transfusion.....4- 3-23
[2]Second transfusion.....4- 3-23
[3]Third transfusion.....4114-23
[4]Fourth transfusion.....4- 4-23
[5]Splenectomy .....6 - 4-23
[6]Coagulation time.....1- 3-24 (Da

Pupils equal, react to light and accomodation. Teeth good. Tonsils fossae empty.

Thorax. Well formed, symmetrical. Lungs normal. Heart normal. Apex impulse 4th inter space within the nipple line.

Abdomen. Soft flaccid, no tenderness. *Spleen not palpable.* Liver not palpable.

X-Ray examination of chest June 4th. No evidence of an enlargement of the thymus.

Splenectomy was performed by Dr. Isidore Cohn, June 4th, 1923. There was no technical difficulty. The spleen was slightly larger than normal, and there was a small accessory spleen on the posterior aspect near the hilum. (Details of the operation have been reported in another place. Surgery, Gynecology, and Obstetrics).

Following the operation, within an hour, there was a febrile reaction up to 103 degrees, pulse to 160 and respiration to 45. There were numerous sonorous and sibilant rales throughout both lungs with great bronchial fremitus corresponding to these. The next day there was dullness at the base of the left lung. On the third day this dullness had disappeared but there was very slight dullness at right base. The temperature continued between 102-103 degrees for three days, then fell by lysis; after the seventh day it was normal. The respirations continued rapid even to 50 to 55 while the temperature was dropping and after the pulse had dropped to the level of 100-120. Skiagraph of the chest made June 11, showed evidence of pneumonia of the right side extending from region of scapula to the base.

We wish to stress the fact that the hyperpnea continued even after the temperature and pulse had become normal and remained 30 to 40 for more than a week.

There has been no recurrence of the purpura. The child has grown and developed. For some weeks following the operation he was encouraged to stay in the sun light with as little clothes as possible in order to stimulate the bone marrow. There is a great contrast between the condition of the boy before the splenectomy and his present condition. The operation was done because of the alarming extent of the purpura and of the progress of the anemia. We are not suggesting similiar operations in cases other than those with thrombocytopenia.

Below is given in tabular form the blood findings before and since the operation:

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DISCUSSION

Dr. A. A. Herold, (Shreveport): This is a very interesting presentation of this subject, not only from the good results obtained, but also from the detail with which he has gone into it. Just a few days ago a physician of Shreveport told me he had done a splenectomy in purpura hemorrhagica with immediate relief and with apparently splendid results. As soon as the spleen was removed the symptoms began to improve.

Doctor Lemann went into details as to the blood

in patients with purpura hemorrhagica, and in this connection I wish to mention two cases which I had about two years ago, one a patient referred to me by Doctor Sanderson, who had been treated by different means in a medical way, and the doctor was puzzled what to do. I looked up the authorities and found that a Frenchman advocated the subcutaneous use of gelatine. I of course concluded they aimed to increase the coagulability of the blood, although according to Doctor Lemann, that is not required. This patient after three injections was apparently all right and remained so for about a year. I heard afterwards from the family physician that there had been some recurrence, and he asked me how to use the gelatine.

Shortly after that I had another case, also referred by Doctor Sanderson,, and in view of my apparent success with the other case I gave this case subcutaneous injections of gelatine, and after two years this patient has remained well.

Dr. F. M. Johns, (New Orleans): I am glad this paper has come up for the benefit of the ear, nose and throat people. They are always sending people to the laboratory for test of the coagulation time, and as far as I can see the coagulation time has very little to do with tonsillectomy. The "bleeding time" determination is of the utmost importance.

The stoppage of hemorrhage consists of two things; one is the contraction of the cut ends of the vessels and then these become covered with platelets, forming a thrombus. Coagulation is a condition that occurs in "still" blood outside of the blood vessels.

The Mayos have reported some success in treating the spleen in purpura hemorrhagica with the X-Ray, and are looking forward to some non-surgical help in at least controlling these cases.

Dr. I. I. Lemann: (Closing) There are two points I brought out that I would like to emphasize still further. One of them is the brilliancy of the operation. I was present last spring at Atlantic City when Doctor Brill described the operation in two cases, two children, one a boy and the other a girl, who had been bleeding so profusely from their mucous membranes that they had become tremendously anemic and were in collapse; their lives were threatened. At the time of the operation the wound bled as I have already described. Naturally the surgeon was tremendously alarmed, but when the clamp was put on the pedicle of the spleen the wound became dry at once and was closed without difficulty. As I said, these were not isolated exceptions. The case of Giffin at the Mayo Clinic presented the same picture, so one must feel that the presence of the clamp upon the spleen pedicle does at once produce a cessation of the hemorrhage.

The other thing I wish to emphasize is that coagulation outside of the body is quite different from prevention of bleeding within the body into the tissues, or even from the mucous membranes, and that coagulation is a different process from continued bleeding. Continued bleeding may go on with normal coagulation, and you may have even abnormal coagulation and a relatively short bleeding time.

The final thing to which I wish to call your attention is that these cases of purpura are differentiated further from bleeders by the characteristic family history of the bleeding. The bleeders are usually bleeders by heredity in a very characteristic fashion. The heredity descends through the female, but the females are not affected; it is always the males who are bleeders and they get their bleeding tendencies from their mother.

TREATMENT OF PROSTATIC HYPERTROPHY*

P. G. GAMBLE, M. D.

GREENVILLE, MISS.

The results of surgery of the prostate in the early days were often very unsatisfactory in patients who recovered from the operation, in addition to the high mortality associated with it. With the valuable work done on the preliminary preparation of the patient for the operation, the development of accurate technique, and the proper after care have greatly lowered the mortality rate, and established a very satisfactory end result.

The preliminary preparation of the patient consists of relieving the patient of the residual urine, preventing absorption, and relieving the kidneys, at the same time treating the cystitis if it be present. A large percentage of the deaths connected with these operations are directly attributable to the kidney diseases resulting in uremia, and a large proportion of the deaths attributed to other diseases, the kidneys are also affected.

Whether it is the presence of the residual urine in the bladder, the infection or whether it is the backward pressure of the urine upon the kidneys which produces a deleterious effect is uncertain, but it is a fact that a reaction may be produced by keeping the bladder empty when it has been accustomed to a few ounces of residual urine, or by instrumentation. In order to overcome the obstruction a catheter is fastened in the bladder through the urethra so that the bladder may be drained properly or a supra pubic cystotomy is performed, or by frequent catheterization. Care should be taken not to empty the bladder too suddenly.

An indwelling catheter is borne well by only a few because of the congestion of the prostate the catheter usually becomes so irritating that three or five days is about the limit of endurance. Frequent catheterization needs the attention of a physician or a trained nurse. Greatest care must be given to gentleness as well as strict asepsis. After a few days a congested urethra rebels, and bleeding follows each catheterization.

*Read before Mississippi State Medical Association, Jackson, May 13-14, 1924.

Epididymitis is also a frequent and painful result of the catheterization, and the use of the indwelling catheter. Why not do a cystotomy at the beginning of the treatment? Under a local anesthesia it can be performed in a very short time with practically no more pain to the patient than he frequently experiences with the indwelling catheter or the frequent catheterization. Under local anesthesia the operator can take plenty of time in selecting the highest point of the bladder opening. With a cystotomy performed more than half the operation is done, and the patient can then wait comfortably for a week or a month if necessary while being prepared for the second operation. Now that the back pressure has been temporarily relieved we can attempt to improve the kidney function. Time given these men will always improve to a point when they are safe for an operation.

Shock is next in order as a chief cause of death. If the bladder is drained and for a sufficient time the patient will improve to such an extent that he can withstand the short general anesthesia for the removal of the gland without great shock.

In the majority of these cases a very definite characteristic reaction is brought about by pre-operative treatment. It is characterized by a general weakness, irritability and restlessness. At the height of the reaction the specific gravity and other tests show that the renal function is below par. During the reaction there is sometimes evidence of an infection such as chill, increased temperature and a rapid pulse.

A functional test of the kidney should always be made at this time, and as a rule will always be found low. After the reaction due either to the instrumentation or the withdrawal of the urine has passed, the specific gravity which always falls after the introduction of the catheter or suprapubic cystotomy will come back up. Under the treatment of the bladder with the indwelling catheter, or through the superapublic opening the kidney function will be greatly benefited and the resistance of the patient will be remarkably strengthened. As to the proper time for the second stage, it is necessary to study carefully the following features: General clinical appearance of the patient, functional renal test, (Thalene, blood chemistry, blood pressure and infection).

The second stage of the operation is done when the patient has reacted to the first stage, and the urine has come back to nearly normal. It has been proven by several clinics that with the proper preparatory treatment more satisfactory results can be accomplished, and with a great deal more safety than if the preparatory treatment had not been carried out. Difference in opinion still exists as to the preference of the supra-pubic and perineal method, however the majority of surgeons seem to favor the supra-pubic method, as it gives a larger percentage of cures that have control of their urine.

The technique is as follows: After the bladder has been drained through the urethra the abdominal incision is made in the usual manner through the skin and fascia, the recti muscles separated. A medium incision is preferred to a small one as it makes the approach to the prostate more accessible. The fat in the supra-pubic space is dissected from the fundus of the bladder and the peritoneum may be accidentally opened. In case this does happen the rent is sutured and no bad effect as a rule follows. It is preferable to open the bladder without distending it with antiseptic fluids, and if this is done it will certainly save the soiling of the wound. The peritoneum having been pushed back, the bladder is lifted as far in the abdominal wound as possible. Gauze pads are packed all around the bladder so as to protect the wound. The bladder is brought forward by means of two lateral threads going through its wall, the wall of the bladder is then cut between the threads. The bladder is dried by sponging or aspiration out of any accumulation of urine or antiseptic solution that may remain in the bladder, or if the case is one of supra-pubic drainage, the supra-pubic opening is enlarged sufficiently to admit two fingers.

With the finger of the left hand introduced into the rectum the prostate can be pushed further into the bladder. The first and second fingers of the right hand are introduced into the bladder and the index finger pushed into the prostatic urethra, very easily breaks into the capsule through the point of least resistance. After the capsule has been ruptured the finger is gradually carried around the gland until the entire gland is freed from the capsule. It is very essential to stick close to the gland while it is being eneucleated. After the gland is completely eneucleated the capsule contracts quickly and the hemorrhage will stop in a short while. If the hemorrhage continues it is best to introduce a self retaining retractor into the incision of the bladder, thereby enabling one to see the

base and the prostatic region. With retractor in place it is possible to see any bleeding vessels and catch them. Most of the oozing comes from the torn bladder mucosa, although at times a fair sized bleeding vessel may be seen down in the prostatic capsule. Interrupted sutures placed to include a little of the bladder mucosa and considerable portion of the capsule controls bleeding in most cases, while this bleeding as a rule will always stop of its own accord, it seems that it is essential to have absolute control of it. In case the sutures do not control the bleeding, a gauze pack may be placed in the prostatic bed for twenty-four to forty-eight hours, or the Pilcher Haemostatic bag may be used. The loss of a small amount of blood in itself is not so important, but it may reduce the general resistance of the patient to infection, which it is very essential to maintain.

After all the bleeding has been checked and the clots removed from the bladder, a drainage tube is placed in the upper angle of the bladder wound. The bladder is closed with interrupted cut sutures up to the tube, none of these sutures including the mucous membrane. Small rubber drainage tube is placed in Retzia's space for at least forty-eight hours.

After drainage tube is fastened to the bladder the abominal wound is closed with a figure eight siik worm gut sutures. Postoperative treatment should begin immediately on returning patient to bed, and consists in supporting patient and keeping the kidney function well up. This is done by the use of a hypodermiclysis and other stimulants. The main points to be considered are shock, hemorrhage, drainage, fluid intake and fever. Hemorrhage should be prevented by proper ligation, packing, infection by drainage; administration of fluids is very important given by mouth and rectum, subcutaneously and intravenously if indicated.

In cases of suppression following prostatectomy, glucose 10 per cent given intravenously will often have a desired effect upon the excretory function of the kidney.

When the urine has all cleared up the drainage tubes are removed and the supra wound allowed to heal. As a rule these patients as soon as their physical condition will permit, should be allowed up and everything done to increase their general resistance.

DISCUSSION.

Dr. L. B. Otken (Greenwood): In taking up the treatment of hypertrophy of the prostate I would like to stress a little further than the Doctor did the too rapid emptying of the over-distended bladder. We must remember that these patients nearly all are past 50 and this is not an acute condition—it has been going on for months and years. If the bladder is enormously dilated and there is cystitis present, there is absorption of a great deal of toxic material. Bugbee of New York and O'Connor of Chicago have done a great deal of work on the blood pressure in these cases. They report one case of a drop of blood pressure following the emptying of the bladder from 170 to 120, death intervening in a few hours. We have all seen these cases brought in with the bladder enormously distended—nearly to the umbilicus, and with a suprapubic done and the urine catheterized the patient died in a few hours. I believe, and these men believe, that in that type of case that a catheter should be put through a small opening and clamped and not allow the urine to rush out all at once, and in that way you can tide over a great many of these cases. O'Connor says in that way you stabilize your prostatic patient. Following suprapubic or ureteral drainage the drop in blood pressure and pulse pressure may continue for several days. If you attempt to operate with the blood pressure going down you will kill the patient. They have shown by a large series of cases that if you wait until the blood pressure becomes stationary, that is, build it up a little and get it stationary and hold it there for five or six days, and then go ahead with the second operation, you stand a much better chance of getting good results and a living patient.

As to irrigation, we have heard a great many men say that you cannot put a self-retaining catheter in there because they have done so and it stayed five days and they could not get it out. If the bladder is irrigated with boric acid and sterile water there will be no trouble.

As to the anaesthetic, perhaps that is worth a few words. A great many of these cases carry a nephritis along with the prostatic hypertrophy. I believe in that type of case it is poor policy to give your patient ether. I know a great many surgeons are adverse to spinal anaesthesia, but it is a proven thing and if used in these cases will give good results. I believe spinal anaesthesia plus local anaesthesia, plus perhaps synergistic anaesthesia, will bring the majority of these cases through without ether. If you want to use something else, use gas oxygen.

As to the type of operation, whether suprapubic or perineal, I think it depends upon the technique perfected by the individual operator.

Dr. L. D. Dickerson (McComb). In my limited surgical practice of ten or fifteen years I have done very few prostatectomies. I have had no fatalities. I prefer the suprapubic route and the two-stage operation.

So far as the after treatment is concerned, it depends entirely upon the patient and upon the doctor. As the doctors have both stated, these are very unsatisfactory patients. I do just as few prostatectomies as possible.

Dr. P. G. Gamble (closing): Doctor Otken spoke of spinal anaesthesia as being preferable to ether. He also spoke of getting the blood pressure back up. How are you going to get your blood pressure up if you use spinal anaesthesia?

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THE STATE MEDICAL SOCIETY

The Louisiana State Medical Society is making progress, but not commensurate with the desire of its enthusiastic members.

Why many good men in the State have not sought membership in their local society, or have dropped membership is not apparent. All must know that medical and social problems of vital interest to the public and the profession frequently arise and that the responsibility to take the initiative in their solution rests on those who are trained in medicine.

Although the *New Orleans Medical and Surgical Journal* has been greatly improved, additional features will be added and it will be larger and more satisfactory when funds are available. Will the State Societies of Louisiana and Mississippi help through organization of active local medical societies?

The physicians of these two states are true to the noble traditions of the profession and are actively concerned in the public health in every way. Humanity's appeal has been answered in the development of sanitary science, bacteriology, preventive medicine and other measures for which the medical profession has given freely of time and effort and without cost.

In Louisiana an Act of the Legislature provides that Boards of Health shall be appointed or elected in every municipality and parish and that the local legislative body shall provide ample means for the maintenance and operation of the Board and for the promotion and conservation of the public health. Will the doctors tell us in how many parishes and municipalities this law has become effective? The Act states the health officer shall be a registered and licensed physician, skilled in sanitary science and that he shall exercise the powers and perform the duties usual and incident to such office.

This means that men qualified to fill the position must be elected and that a reasonable salary shall be fixed by the Board of Health and approved by the Police Jury or the Municipal Council. The laborer is worthy of his hire. Is it not the obligation of the medical profession, organized or unorganized, to see that this law is enforced when our police juries and municipal councils have taken an oath to support the constitution and laws of the State?

In a recent issue of the Pittsburgh Medical Journal there appears: "Ten Ways to Kill a Medical Society:

1. Don't go to the meetings.
2. If you go, go late.
3. If the weather doesn't suit you, don't think of going.
4. If you do attend a meeting, find fault with the work of the officers and members.
5. Never accept office as it is easier to criticize than to do things.
6. Get sore if you are not appointed on committees, but if you are, do not attend committee meetings.
7. If asked by the chairman to give your opinion on some matter, tell him you have nothing to say. After the meeting tell everyone how things should be done.
8. Do nothing more than absolutely necessary, but when members use their ability to help matters along, howl that the institution is run by a clique.
9. Hold back your dues, or don't pay at all.
10. Don't bother about getting new members—"let George do it."

The Journal of the Michigan State Medical Society also suggests: "Don't go to your Parish Meetings if—

1. You know everything already.
2. If you are impervious to new ideas when presented by others.
3. If you have reached the acme of excellence and efficiency.
4. If your ability cannot be improved.
5. If you can't see any benefit in discussing the other fellow's suggestion.
6. If you are too miserly to contribute some of your time to organized, cooperative effort.
7. If you have no use for your fellowman. On the other hand if you want to be a part and an active supporter of your society—then go to every meeting."

In the Principles of Medical Ethics we read in Section 2, under the duties of physicians: "In order that the dignity and honor of the medical profession may be upheld, its standard exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession."

If every member of the Medical Societies in Louisiana and Mississippi would bring into the society at least one new member until every physician, worthy and qualified, enjoyed membership in our State and National Medical Organizations, there would be a splendid altruistic organized force which could do more for the betterment of social welfare than any other body now organized.

Pasteur said at the opening of the Pasteur Institute in Paris: "Two opposite laws seem to me now in contest. The one, a law of blood and death, opening out each day new modes of destruction, forces nations to be always ready for the battle. The other, the law of peace, work and health, whose only aim is to deliver man from the calamities which beset him. The one seeks violent conquests, the other the relief of mankind. The one places a single life above all victories, the other sacrifices hundreds of thousands of lives to the ambition of a single individual.

It is the physician above all whose aim is to deliver man from the "calamities which beset him."

VACCINATION IN MISSISSIPPI

It is safe to say that an exhaustive search of the literature would fail to reveal a better demonstration of the efficacy of *systematic* vaccination than this:

"There has been no opportunity of observing variola in any form in this clinic for nine years; still it is necessary for every well informed physician to have a knowledge of this important disease. As a result of strict vaccination and re-vaccination, in Germany, the disease has been prevented from appearing, so that many physicians have never had an opportunity of seeing smallpox. However, on account of our great intercommunication with other countries, we may at any moment be required to treat the disease in travelers." (Variola, by Ch. Bäumler, in Die Deutsche Klinik, translated in Infectious Diseases, Salinger, New York, 1905). During the past few years, in several cities of Mississippi, children have been required to present a certificate of successful vaccination before being permitted to enter school. Recently, however, a lawyer came before the School Board of one city, to protest, on behalf of two Christian Science families, against the compulsory vaccination of school children because "it interfered with their religious liberty as guaranteed by the Constitution of the United States." He pointed out that, according to Mississippi laws (Hemingway Code, No. 4841, 1917 ed.) the Board of Supervisors of a county is the only agency in the State having the right to order compulsory vaccination, and that they may exercise this right only when they are convinced of the presence of an epidemic.

But when an epidemic occurs we know that our health officers are criticized. It is quite as necessary to educate the public to feel that preparedness against disease is needed just as much as is preparedness against the invasion of a foreign army. Systematic vaccination will provide such a defense against smallpox. All physicians know that vaccination of children at the end of the first year, with repetitions at the time of entry into school and at the eleventh and sixteenth years, would soon eliminate smallpox.

In addition to the rationality of such a procedure, it must be remembered that the panic that occurs when an epidemic exists is costly. Vaccinating only when an epidemic comes is as clumsy and as inefficient as is raising, equipping and drilling an army when a foreign invader has already set foot on our soil.

At present time, we are confronted with this situation: We have a law which makes attendance at school compulsory, but there is no law by which the health of the children who are thus compelled to go to school may be protected.

We should work for a standardized, model law, making regular vaccination compulsory in all states and thus in our own state remove from the shoulders of our County Supervisors the burden of the decision as to when the need for vaccination exists.

On account of the rapidity of travel today, a single case of variola is a potential menace to every community within a radius of one thousand miles.

We have eliminated yellow fever.

We can eliminate smallpox.

Let's do it!

DYER MEMORIAL PRIZE

The graduates of Tulane University of Louisiana School of Medicine from 1908 to 1920 are to prepetuate the memory of their late Dean, Dr. Isadore Dyer, by an endowment fund to be known as the Isadore Dyer Memorial Medical Scholarship Fund, the income from which will be used yearly to provide a prize of such form as the executive faculty of the school may determine. The prize is to be given to the member of the graduating class who has made the highest combined average grade for four years of study in the Tulane School of Medicine.

Dean Dyer was loved and appreciated by all his students. He was ever the students' friend. By his high idealism and honesty of purpose he did much to inculcate in the minds of those who came under his influence, those high ideals and aims in life for which the best in the medical profession stands.

This movement has been fostered by Dean C. C. Bass and Miss Collens, the latter having served Dr. Dyer as private secretary, and who is still in the Dean's office. Entirely by voluntary contributions they have undertaken to raise this fund. We feel sure the amount necessary will be oversubscribed.

OPHTHALMOLOGY A PROFESSION AND NOT A TRADE

"One of the functions of a society such as ours is to elevate the standard of ophthalmology and this by the correction of subtle influences that tend to bring the practice of a trade into our profession."*

We reproduce the resolutions of the American Ophthalmological Society and the report of the Committee on the Optical Question as requested by the judiciary Committee of the American Medical Association:

"Resolved, That we deprecate the selling of glasses by the optholmologist to the patient in communities where the services of reliable dispensing opticians are obtainable.

Resolved, That the acceptance of commissions or considerations, either directly or indirectly, by the ophthalmologists from opticians or optical houses is absolutely contrary to all standards of medical ethics and just as reprehensible as the splitting of fees."

At the meeting of the Section on Ophthalmology in Chicago, the Committee on the Optical Question reported as follows:

"At the request of the Judicial Council, your committee has considered the two questions of the furnishing of glasses by the ophthalmologist to his patients, and the acceptance of commissions by ophthalmologists from opticians and optical houses.

Your committee feels that the acceptance, either directly or indirectly, of a fee or consideration from the sale of glasses is so pernicious, reprehensible and underhanded as to require no comment. It should be stopped and our section should impose such penalties as lie within its power and recommend to the national societies the rejection of the application of ophthalmologists for membership who pursue such practices.

Your committee therefore recommends the adoption of the resolution."

The resolutions as adopted were practically the same as those stated above and adopted by the American Ophthalmological Society.

These resolutions are very apropos and will assist in correcting this tendency to commercialize a specialty in the profession. It offers an opportunity to many who could not discriminate and to right their reprehensible action. The ruling coming from such far reaching powers and voiced by the whole American Medical Association shows a desire to correct a potential evil existing in our midst.

THE GORGAS MEMORIAL

During the past year, throughout the United States, the work of organizing the Gorgas Memorial State Governing Committees has been progressing. In some states the response has been most enthusiastic, while in others considerable effort has been necessary to bring home to the doctors, the importance of this movement

*George S. Derby, M. D., in his Chairman's address before the section of ophthalmology, A. M. A. meeting in Chicago, June, 1924.

to them, individually and collectively. Inasmuch as the Gorgas Memorial is primarily a medical movement and as such must have the united support of the profession if it is to make the proper impression on the general public, we take this occasion to outline briefly the Gorgas plan and to request the cooperation of our colleagues in bringing to a successful issue, this national health program.

We are planning to establish a Memorial for our former chief, Major General William Crawford Gorgas, not of marble or bronze, but a permanent, living organization in the for mof a great health foundation typical of his work in research and curative medicine, that will unite lay men and doctors in an intelligent effort to obtain better personal healtha health guild that will be supported and directed by the representatives of curative medicine.

The Gorgas Memorial consists of two phases:

1. An Institute in Panama for research in tropical diseases.
2. A health educational program in the United States and other countries that wish to co-operate and participate in the movement.

We are living in an age when people are knocking at all doors of knowledge and demanding that they be admitted. In the field of medicine who are so well fitted to meet this demand as those actually engaged in the practice of medicine? The doctors have a far more interesting and important message to deliver than any other group.

In the United States today there is scarcely a community that has not its quota of irregular "medical practitioners," so called. In many states there are strong organizations of the representatives of the various cults, whose theories are imposed upon an uninformed public. Public ignorance is encouraged by professional reticence and the result is the astounding growth of unscientific methods. If the profession is to maintain the high standing to which centuries of labor in behalf of suffering mankind entitles it, it is essential that a definite organized effort be made to familiarize the public with such facts as will impress upon it the importance of medicine's contributions to human welfare. A constant fund of proper health information through the newspapers, magazines, lectures, moving pictures and the radio, furnished by medical men and women of known reputation and standing, will direct the public to the proper source for medical advice and gradually eliminate the irregular practices constantly increasing.

One of the objects of the Gorgas Memorial is to furnish a channel through which this kind of information may be disseminated. It cannot be done by individual physicians. It must be conducted by a dignified, ethical organization, controlled by the medical profession. The name of Gorgas is synonymous with "better health." No more appropriate name could be adopted for a movement that has for its object, *the development of co-operation between the public and scientific medicine for the purpose of improving health conditions by implanting the idea in the mind of every individual that scientific medicine is the real authority in all health matters and as such should be recognized as the source of health instruction.*

Before we ask the public for financial and moral support, it is essential that the doctors of the country unite in support of this program. As a means to this end, Governing Committees are now in process of organization, on the basis of 100 members to every 1,000,000 population in each state, 75 per cent of the personnel of each Committee will consist of medical men and 25 per cent of influential laymen and women. The permanent activities of the organization will be supervised by these Committees in their respective states, in co-operation with the National Executive Committees.

An organization cannot operate without funds. We are endeavoring to raise an Endowment of $5,000,000, the interest only of which will be utilized to carry on the work. The principal will be invested in trust securities and remain intact. None of the money thus obtained will be spent for buildings or equipment. The Republic of Panama has donated the site and guaranteed the initial buildings and equipment for the tropical research laboratories, in recognition of Gorgas' great work in Panama. Those invited to serve as Founder members of the State Governing Committees are requested, as they accept membership on the Committee to subscribe $100 to the Endowment Fund, payable within two years. Every individual on the State Committee is a contributing member. When the medical nucleus of the organization is complete, a general appeal for funds will be made to the public.

The American Medical Association at its recent meeting in Chicago, passed the following resolution:

Resolved, That the House of Delegates of

the American Medical Association, convinced of the great promise which the Gorgas Memorial contains of benefit to humanity through improved knowledge of preventive medicine and tropical disease, and of its peculiar adequacy, as a tribute to our great leader and sanitarian, recommend to the organized profession of the country, through its constituent state and county societies, the enthusiastic support of the project."

J. A. Witherspoon, Tennessee.
Joseph Rilus Eastman, Indiana.
Thomas Cullan, Maryland.
W. H. Mayer, Pennsylvania.
F. B. Lund, Massachusetts.

The Memorial has also been endorsed by numerous other medical and civic organizations.

Every doctor is requested to take a personal interest in the Gorgas program and to see that his community is adequately represented on the State Governing Committee. Each County Society should appoint officially at least one of its members to serve on the State Committee. This is one foundation that is controlled by the practitioners of curative medicine and as such should be supported by every practicing physician. Let us pull together, "the doctor for the doctor."

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MEDICINE ORGANIZED

Special efforts by the Councilors of the Medical Societies to organize the unorganized parishes of Louisiana and counties of Mississippi between now and the coming session of the State Medical, would be invaluable to the profession of both States.

We need in every parish and county a Society to be composed of every reputable, licensed graduate and practitioner of medicine in any of its branches. Sooner or later every reputable physician will find noblesse oblige he should be a member.

Each Society, or group of two or three parishes, should hold regular monthly meetings and the officers should present a profitable program.

Provision should be made occasionally for post-graduate courses and clinics with demonstrations that would be of practical value to the busy country, as well as the town, doctor.

The public should be invited to one or more meetings during the year that they might be better informed from a reliable source, the truths of medicine and what it stands for.

Membership in the local Medical Society carries prestige and the Society should have a voice in all matters relating to health and the welfare of their respective communities and the State, looking to better service and more effective cooperation.

The standards of medicine and the practice of medicine can be elevated better through Medical Societies than through individual effort, be that individual ever so competent.

Every community should be represented through its Medical Organization in all public councils wherein the health of the public is considered, discussed and where there is legislation proposed for enactment. All reputable members are provided with protection in malpractice suits and enjoy freedom from persecution. These are only

a few of the reasons why you should be a member of your local, State and National Medical Societies.

The *New Orleans Medical and Surgical Journal* goes to every member of the local Society. That member becomes a member of the State Medical Society and the National, but in order to enjoy fellowship in the National it becomes necessary of your own election to make the request and remit five dollars, which covers your national membership and the subscription to the *Journal of the American Medical Association*. Remember, every membe rof the State Medical Society is a member of the American Medical Association and is represented in the deliberations of that organization by the delegate to the meeting. But to be a FELLOW in the American Medical you make the simple request and pay the five dollars. Any Fellow of the A. M. A. may select instead of the American Medical Journal one of the special Journals with a credit of the usual amount on the special journal. There is no extra charge for those selecting the Journal on Children. An additional nominal amount is charged for the Archives of Dermatology and Syphilology, the Archives of Neurology and Psychiatry, the Archives of Surgery, the Archives of Internal Medicine and the Archives of Otolaryngology.

Every progressive physician realizes that research is progressing as never before in the field of medicine. "A reading of the special journals will quicken the diagnostic sense and reveal to the general practitioner the largest worth-while advances in the special fields of medicine." Can a busy practitioner, interested in the welfare of those committed to his care, afford to be without these excellent Journals published by the A. M. A.? Remember, every Fellow, as well as every member of the State Medical Society, is interested in the affairs of the American Medical Association, as well as your State Medical. Every contributor to the dues is an equal stockholder. The American Medical Association owns its own building, and in this is housed one of the best and most up-to-date printing establishments to be found in the United States. We have more than one million dollars invested and from this we have a right to draw information and knowledge by the payment of a small amount assessed as dues.

On New Year's Day let us not forget Hygeia, the magazine of health which carries a monthly plain facts about health and disease. Subscribe, read and place on the table of your waiting room for your patrons.

This appeal is made to every reputable, licensed physician in our two States, to join the local Medical Society, as well as State, and pay your dues with request for Fellowship with the American Medical and receive one or more of its publications.

May every reader of this Journal during 1925, as well as those who may join our ranks, have a full share of peace and happiness in the coming year.

MEDICAL ECONOMICS

Chas. A. Bahn, M.D., Department Editor.

MEDICAL ECONOMICS, VI, MEDICAL RECORDS. PART 2

(Continued From Last Month.)

Our professional office records are usually divided into three parts: medical, financial, and administrative. The medical portion contains: (1) general information such as the name, age, sex, etc.; (2) the history or patient's statement; (3) the doctor's description of the ailment, not what is believed, but what is acually known as fact, seen, heard, and felt with tactile sensibility; (4) the treatment: hygienic, chemical, mechanical, surgical, etc.; (5) progress as seen through the patient's and doctor's eyes: and (6) the diagnosis or descriptive name of the ailment.

Last month we discussed histories. This month we will begin with the doctor's description of the patient's ailment, called objective findings. These should contain all information which can have any practical bearing on the patient's ailment or well-being which might directly or indirectly affect complete recovery. Some physicians may desire greater detail than is necessary, the majority lean to the other extreme.

In medical histories the grand idea is to understand through the patients' statements, the human being and ailment. In objective examination the grand idea is to see, hear, or feel everything which might have a practical bearing, more or less independently on the patient's statements. Interpretation is another story. One is often amazed at the difficulty that the untrained have in separating actual fact as transmitted by the senses from its interpretations, or what observations possibly mean. Ask the average medical student to describe any given condition as actually seen. The result will probably be a volley of four syllable Latin words, which are subject to a half dozen different interpretations and which do not represent what was actually seen at all, but an interpretation usually expressed in a hazy, ambiguous way. Learned reader, put yourself to this test. Write an accurate and complete description of any simple medical lesion in plain English words of one or two syllables which can be interpreted in but one way, and which express exactly what you know as fact. The chances are about one in ten that unless experienced you will succeed on the first trial.

We want, therefore, here to obtain in the best, easiest, and quickest way, independently of the patient's cooperation, all possible knowledge which has a possible bearing directly or indirectly on recovery or health restoration. Generally, what we do often, we do well, because as more of the better understood portion of any complex act is directed by our subconscious mechanism, our conscious or analytic powers have a better opportunity of explaining the more difficult. A systematic routine examination method has therefore the advantage of being misproof, in that one is sure to come in contact through one of the senses, with any deviation from the usual; and of being rapid, in that as we become trained, it is possible to take in a large number of co-related facts at one glance; and effective in having, after we become trained, a definite sequence. Routine systematic examination possibly has the disadvantage that goes with concentrated effort; it is difficult to train one's faculties to repeatedly do any complicated act in the same way, even though it be the best way. Then there is the possibility of performing the act in a semi-conscious manner because one is too mentally lazy to stop, look, listen and ask why. Of course most of us would prefer that some mysterious force direct our eyes to the affected spot, hold them there until our consciousness was attracted, think out the matter for us and mentally serve the solved problem on a silver platter without effort on our part. Unfortunately, however, medical science cannot be usually learned in such a painless, workless, twilight sleep, way. What we get easily, we forget easily, which means that in the long race, the plodder and the flyer, as well as the hare and the tortoise, both carry about the same handicap, though in different ways.

Although it is mentally much easier to flit from cloud to cloud, we are more apt to miss valuable information about our patients' health problems by haphazard, than by routine, systematic examination methods which are capable of indefinite expansion until our problem is understood so far as medical science permits.

In ophthalmology a routine systematic examination is rather simple because the arrangement of the tissues make sequence easy and logical. Thus we begin with the face, including brows, lids and margins; then pass to the lid opening; the lacrimal apparatus, the eyeball; the conjunctivatae, of lid and eyeball; the sclera; cornea; anterior chamber; iris; pupil; lens; vitreous; papilla; retina and choroid, including vessels; noting changes of size; shape; color; position; and function; sensory, motor, secretory, and visual. If we have done this we are sure to have seen everything that could possibly be of value. Whether or not we understand what we have seen is another question. In ophthalmology, therefore, we have a misproof form of examination which in its simplest form can be made in about two minutes per eye, which comprises several hundred details and which is capable of indefinite expansion to include the most complicated conditions.

There is doubtless a similar examination form in every branch of medicine which facilitates obtaining all pertinent information in the best, easiest and quickest way. Time and patient effort are necessary for its mastery and personal variations should be made on anything that we adopt from others. Have you read Martinet's "Clinical Diagnosis and Objective Symptoms," which is written around this fundamental idea, also Cabot's Physical Diagnosis, etc.? If not, read them. You may get ideas which can be adapted to advantage in your daily work. I believe that in the past we have not devoted enough time and effort to the analysis and study of what we do and why we do it, especially pertaining to the understanding of our patients. It is much easier to let some celebrity do our thinking and make our mistakes:—but think of the sport one misses in not expressing one's individuality, in not making one's own mistakes, and in being blindly led by others.

The method that you select should be truly yours and best adapted to you, but it should be based upon sound fundamentals. Our object in this series of articles is not to think for you, but

to interest you in doing your own thinking along practical lines which will increase your usefulness.

If you do not have a systematic routine method of examination which is capable of indefinite expansion, why not begin today making one. Your first efforts were or will be crude, but with practice, one is surprised at the results as contrasted with the hit-and-miss method based on chance and accident which most of us have probably used.

The use of coding systems of one sort or another, whether as shorthand or abbreviations with numbers or letters to express degrees of intensity, may be of interest to some. The advantage is in the more rapid recording and more uniform grading of differences; the disadvantage lies in the fact that most of us can only learn shorthand in one form or another while in a plastic mental age and when our coordinative powers are at their maximum. Another disadvantage lies in the fact that abbreviated records are often difficult to read later, even by the writer. Abbreviations based on fundamentals, such as size, shape, color, position and function, often employ as the variable factors, letters or numbers to express degrees of intensity. Thus, a, b, c, d, e, and f may be used to type the severity of a condition, or 1, 2, 3, 4 and 5, plus or minus, to express variations from the average or normal. I will be glad to discuss the subject further with anyone interested.

A few words may not be amiss about diagnoses. Did it ever occur to you that your diagnosis should represent, in a few words, your very own description of the patient's ailment; its site, intensity, classification, cause, and anything else that might identify it and facilitate its better understanding. Why should we blindly adopt the names that others may give bodily ailments? Diagnosis should be ours, irrespective of what anybody else might name an apparently similar condition. It is better to name and classify an ailment our own way, if it represents our very best thought on the subject, crude though it may be, than to take blindly a name coined by the wisest man in the world. This may not be orthodox but it speaks for individual thought and understanding, which, after all, is the main thing. The sooner our profession learns to break with the mistakes of others and of the past, and the quicker we realize that each of us has to solve each problem on its own merits irrespective of what others may have done under apparently the same conditions, the better it will be for us and the public.

The financial part of our records should take into consideration the date and charge for each service rendered and the date and amount paid therefor. In a small practice this is perhaps best accomplished by the use of a part of the patients' record card, ruled for this purpose with four columns, preferably parallel; to contain the dates and charges and dates and payments. The daily total of these amounts are transferred to a loose leaf or bound volume, giving the total charges, collections, and outstanding bills for the next month, and thence for the year. In a larger practice especially where several persons, possibly including the patient, handle the card, it becomes necessary to have a more permanent financial record. Here either the card mentioned above is used as a temporary work sheet or a daily list is made containing the names, charges and payments; these being transferred to a loose leaf or bound ledger, accounts receivable. An extra column may be devoted to allowances or deductions of charge which occur in every practice.

Depending upon the complexity of the organization, this idea may be elaborated indefinitely, even though there is a central cashier and bookkeeper who has direct charge and responsibility for all money and charges. The bonding of those who have charge of monies costs but very little, and does not imply a lack of confidence any more than fire insurance. It is simply a business precaution which an honest employee will appreciate and not resent. I recall an instance in which several doctors saved somewhat over four thousand dollars by having their cashier bonded.

Permanent records of our income and disbursements may be arranged on a single or double entry method of bookkeeping. The former is simpler and with certain modifications takes into account every cent taken in, paid out, and on hand, whether in money, bills receivable, or equipment, which is probably what you want to know. The underlying idea of this method is:—WHAT YOU HAVE AT THE BEGINNING OF THE ACCOUNTING PERIOD; accounts receivable, cash, and physical property as equipment, etc.; PLUS WHAT YOU TAKE IN DURING THE ACCOUNTING PERIOD; IS EQUAL TO WHAT YOU HAVE PAID OUT OR USED DURING THE ACCOUNTING PERIOD. PLUS WHAT YOU HAVE AT THE END OF THE ACCOUNTING PERIOD.

Our record system must, therefore, take into account all charges, collections, the value of physical property and disbursements, classified preferably on the basis used in our federal income tax returns; that is, equipment, which has more or less permanent value; supplies, which have no permanent life such as stationery, etc.; operating expense, such as rent, light, telephone, assistance, etc., which have no physical value; and withdrawals, the amount that you personally receive, or what is usually left, divided into taxable and tax exempt. This subject will be discussed later.

The ordinary multicolumn loose leaf ledger with six or eight vertical divisions, for the above mentioned items, and six horizontal divisions for the six working days of each week, enable one to maintain a bookkeeping system, inexpensively and simply by which one can easily be determined the daily, weekly, monthly and yearly bank balance, deposits, withdrawals, cash receipts, charges and disbursements; classified as equipment, supplies, operating expense and net profits. Income tax returns are simply a modification of the year's totals.

(To be continued.)

Kindly send inquiries, comment and criticism to Dr. Charles A. Bahn, 1551 Canal St., New Orleans, La.

NEWS AND COMMENT

Lucien A. Ledoux, M. D., Department Editor

TRYPARSAMIDE

The Rockefeller Institute for Medical Research has announced the release of the drug known as Tryparsamide for use in the treatment of human and animal trypanosomiasis (African sleeping sickness and *mal de caderas*) and selected cases of syphilis of the central nervous system. This action is based on results reported from clinical investigations which have been in progress for several years. The drug will be manufactured by the Powers-Weightman-Rosengarten Co., of Philadelphia, and will become available through the regular trade channels about January 1, 1925. In releasing the drug for the benefit of the public, the Rockefeller Institute desires it to be known that the Institute does not share in any way in profits that may be derived from the sale of the drug, and that, with the cordial co-operation of the manufacturers, provision has been made for the maintenance of a schedule of prices on as low a basis as possible.

MONTHLY BULLETIN OF THE ORLEANS PARISH MEDICAL SOCIETY

The activities of the Society for the year 1924 terminated with the annual election of officers which was held December 13th, 1924. The following members compose the new Board of Directors.

Dr. Urban Maes, President.
Dr. Maurice J. Gelpi, 1st Vice-President.
Dr. L. L. Cazenavette, 2nd Vice-President.
Dr. Jerome E. Landry, 3rd Vice-President.
Dr. Lucien LeDoux, Secretary.
Dr. John A. Lanford, Treasurer.
Additional members of the Board of Directors:
Dr. Frederick L. Fenno.
Dr. E. J. Richard.
Dr. M. T. Van Studdiford.

The new officers will be formally installed Monday, January 12th, 1925, at 8 p. m. An attractive program has been provided, and an invitation is extended to all members, their families and their friends.

The joint meeting of the old and new Boards of Directors will be held Monday, January 5th, 1925, at 8 p. m.

Beginning with the New Year, all new members will be introduced to the Society the first meeting following their election to membership.

Membership cards for the current year will be issued to members upon payment of annual dues.

Approximately 500 copies of the Code of Ethics of the American Medical Association, which is the code of the Society, have been distributed among the membership.

A new membership class, Interne Membership, has been finally adopted by the Society. Internes in the City Hospitals are eligible and will enjoy full membership privileges. Upon completion of their Internship they automatically become active members. The dues have been fixed at $5.00 per annum, $4.00 to the Louisiana State Medical Society and $1.00 to the Orleans Parish Medical Society. It is hoped that all eligibles will be canvassed and invited to join the Society.

Delegates and Alternates to the Louisiana State Medical Society Convention for 1925-1926 are as follows:

Delegates—Dr. Chaille Jamison, Dr. Henry Daspit, Dr. Lucien LeDoux, Dr. Paul Gelpi, Dr. John A. Lanford, Dr. Urban Maes, Dr .Allan Eustis, Dr. P. A. McIlhenney, Dr. Maurice J. Gelpi, Dr. F. J. Chalaron.

Alternates—Dr. J. E. Landry, Dr. L. L. Cazenavette, Dr. Geo. Hauser, Dr. M. T. Van Studdiford, Dr. F. T. Brown, Dr. W. A. Reed, Dr. O. C. Cassegrain, Dr. D. J. Murphy, Dr. Geo. H. Upton, Dr. W. H. Block.

The resolution of Dr. Maurice Couret in regard to Non-Professional Laboratory Technicians is in committee.

The following applicants have been elected to active membership: Dr. R. A. Hale, Dr. M. O. Miller, Dr. H. G. Ogden and Dr. L. J. Stookey.

Dr. Homer Dupuy and his Convention Committee very satisfactorily cared for the Southern Medical Convention, which was the largest in its history.

The present membership in the Society is 458.

Program for January:

Monday, January 5th, 1925—Joint meeting of Board of Directors.

Monday, January 12th, 1925—Annual meeting.

Monday, January 26th, 1925—Scientific meeting.

"Every man owes some of his time to the upbuilding of the profession to which he belongs."—Theodore Roosevelt.

Reports received during the past six months, of medical activities, show a gratifying increase.

The News and Comments last motnh were fairly representative.

It is hoped that the secretaries of all local medical societies and other medical or health organizations from Louisiana and Mississippi will send from month to month news from their respective localities.

SHREVEPORT MEDICAL SOCIETY

At the annual meeting of the Shreveport Medical Society in December the following were elected for the ensuing year:

President, Dr. E. L. Sanderson; Vice-Presidents, Drs. A. P. Crain and M. S. Picard; Secretary, Dr. R. T. Lucas, re-elected; Treasurer, Dr. J. Stamper; Historian, Dr. F. S. Furmna.

OUACHITA PARISH MEDICAL SOCIETY

At the annual meeting of the Ouachita Parish Medical Society held in Monroe, in December, the following were elected for the ensuing year:

President, Dr. J. R. Vaughan; Vice-President, Dr. P. L. Perot; Secretary-Treasurer, Dr. J. T. French, re-elected; Delegates to State Society, in addition to Dr. Snelling, elected last year, Dr. J. Q. Graves.

Dr. C. Jeff Miller of New Orleans and Dr. A. A. Herold of Shreveport were present by invitation. The former read a highly instructive and much-discussed paper on "Caesarian Section; its indications and its limitations." Dr. Herold, as a visiting councilor, gave a general talk on the society, the Journal, etc.

Governor Fuqua has recently appointed the new Charity Hospital Board for the Shreveport Hospital. At its initial meeting this board elected Mr. W. W. Campbell president, and Dr. J. M. Moseley of Arcadia, Louisiana, superintendent. Up to this writing there has been no further announcements as to the policy of the new administration or as to the personnel of the new staff.

The Tristate Sanitarium, the latest addition to Shreveport's private hospitals, was opened on Thanksgiving night with a public reception. It is owned by Drs. Pirkle and Williams of Shreveport, and is situated on Greenwood Avenue, near the Fair Grounds.

WASHINGTON PARISH MEDICAL SOCIETY

The Washington Parish Medical Society held its December meeting in the dining rooms of the Pine Tree Inn, Bogalusa, Louisiana, December 18th, 1924.

The meeting was one week earlier than the regular monthly meeting for this month, but the date for the regular meeting was Christmas day, and the society at its last meeting decided it would be better to hold this meeting a week earlier.

The scientific program consisted of a paper, "Headaches," by Dr. W. A. Martin. Discussion opened by Drs. Pierce and Jones.

This meeting was the annual meeting of the society, and an especially good time was had. New officers for the ensuing year were elected.

LAFOURCHE PARISH MEDICAL SOCIETY

The Lafourche Parish Medical Society held a meeting in Thibodaux, Louisiana, on November 21st, at which time the following officers were elected for 1925:

President, Dr. F. T. Gouaux, Lockport; Vice-Presidents, Dr. C. J. Barker, Thibodaux; Secretary-Treasurer, Dr. P. H. Dansereau, Thibodaux. Delegates to the State Society meeting, Dr. J. J. Ayo, Raceland, and alternate, Dr. C. J. Barker, Thibodaux.

WEBSTER PARISH MEDICAL SOCIETY

The Webster Parish Medical Society met on Wednesday, December 17th, at 2 p. m., in the First Baptist Church at Minden.

Dr. W. McDade read a paper on the progress in Medical Science made in the past 100 years. Dr. J. B. Benton of Minden read a paper on Pyelitis. Dr. R. T. Lucas and Dr. W. S. Kerlin of Shreveport were visitors and read papers, the former on "Some Practical Points in the Artificial Feeding of Infants" and the latter on "Pulmonary Abscess with Demonstration of X-Ray Plates." There was a good attendance and the papers were well discussed.

A resolution was passed endorsing the Tuberculosis and Public Health Association of Louisiana.

Officers for the year 1925 were all re-elected as follows: Dr. W. McDade, of Minden, President; Dr. J. D. Kilgore, Minden, Vice-President; Dr. C. M. Baker, Minden, Secretary-Treasurer. Dr. J. B. Benton and Dr. W. McDade were elected Delegate and Alternate to the State Society meeting.

MEDICAL SOCIETY OF THE MISSOURI VALLEY

The thirty-seventh annual meeting of this association was held at Des Moines, Iowa, under the presidency of Dr. H. J. Lehnhoff, Lincoln, September 17, 18 and 19, in conjunction with the annual clinics of the Polk County Medical Society. The success of this meeting has demonstrated the value of diagnostic clinics in connection with symposia. The morning hours were devoted entirely to clinics, while the afternoon sessions were occupied by the reading of papers and discussion, following symposia on various topics.

Dr. Robert A. Strong of Pass Christian, Miss., formerly Professor of Clinical Pediatrics, School of Medicine, Tulane University, who is now editing the International Medical Digest, which is published in Hagerstown, Md., is spending the winter months at his home on the Gulf Coast.

THE AMERICAN BOARD OF OTOLARYNGOLOGY

The American Board of Otolaryngology was organized in Chicago on November 10. The following constitute the board of directors. Drs. Harris P. Mosher, Boston, president; Frank R. Spencer, Boulder, Colo., vice-president; Hanau W. Loeb, St. Louis, secretary and treasurer; Thomas E. Carmody, Denver; Joseph C. Beck, Chicago; Thomas H. Halstead, Syracuse, N. Y.; Robert C. Lynch, New Orleans; Burt R. Shurly, Detroit; Ross H. Skillern, Philadelphia; William P. Wherry, Omaha. The office of the Board is at 1402 South Grand Boulevard, St. Louis, Missouri.

The Board comprises representatives of the five national otolaryngologic associations: the American Otological Society, the American Laryngological Association, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Otolaryngology and the Section of Laryngology, Otology and Rhinology of the American Medical Association.

RELIEF FOR A STRICKEN CITY

A shipment of Anti-Plague Serum and Bacteria, produced in the Biological Laboratories of the H. K. Mulford Company, Philadelphia, Pa., was sent across the continent by airplane in the early days of November, in response to calls for help from Los Angeles.

UNITED STATES CIVIL SERVICE EXAMINATION

Applications for medical interne (psychiatric) will be rated as received until June 30, 1925. The examination is to fill vacancies in Saint Elizabeth's Hospital, Washington, D. C., at an entrance salary of $1,860 a year.

REMOVALS

Dr. O. F. Ernst, from 1226 Maison Blanche Bldg., to 503-505 Physicians' and Surgeons' Bldg.

Dr. I. J. Irwin, from New Orleans, Louisiana, to Larose, Louisiana.

OCTOBER MEETING OF NORTH LOUISIANA STAFF

Regular monthly meeting of the North Louisiana Sanitarium Staff met in the assembly room. Dr. Thomas Ragan, President, in the chair.

After transaction of routine business the hospital record for September was analyzed. Of the two deaths, one was from ruptured appendix and the other followed resection of the bowel. The "unimproved" was discussed and satisfactorily explained.

Dr. Abramson reported a case of carcinoma of the esophagus of about a year's duration, which had been in the Sanitarium twice recently. It had been treated by deep therapy and later on required gastrostomy. Drs. Herold and Sentell, who also treated the case, discussed it, the former explaining the number of mistaken diagnoses made, both in Shreveport and in New Orleans. Dr. Murphy showed with his X-ray studies the nature of the case. He then exhibited the X-ray plates, demonstrating the lesion.

Dr. Abramson reported two cases of chronic appendicits, stressing the point that removing the diseased appendix does not always necessarily cure the patient. Discussed by Drs. Rougon, Crain, Herold, Rigby and Stamper. Dr. Herold exhibited a case of aneurysm of the thoracic aorta with rather low systolic pressure. Dr. Paine reported a similar case.

Dr. Murphy reported a case with X-ray findings of sub-deltoid bursitis, markedly improved by diathermy. Discussed by Drs. Abramson, Durham and Ragan.

Dr. Durham reported a case of congenital deformity of the foot in a three-weeks-old baby, with marked improvement following plastic operations.

Dr. Rougon reported a case of gonorrheal arthritis, involving the cervical vertebrae, which recovered under appropriate treatment with vaccines.

Meeting adjourned until December.

PUBLICATIONS RECEIVED

C. V. Mosby Company, St. Louis: "Modern Methods of Treatment," by Logan Clendening, M.D. "The Treatment of the Common Disorders of Digestion," by John L. Kantor, Ph.D., M.D. "The Science and Art of Anesthesia," by Colonel William Webster, D.S.O., M.D., C.M. "Life Insurance Examination," edited by Frank W. Foxworthy. Ph.B., M.D.

The MacMillan Company, New York: "Hospital Organization and Operation," by Frank E. Chapman. "The Internal Secretions," by Dr. Arthur Weil. "Anesthesia," by James Taylor Gwathmey, M.D.

P. Blakiston's Son & Co., Philadelphia: "A Manual of Histology," by Henry Erdmann Radasch, M.Sc., M.D. "Insanity and Law," by H. Douglas Singer, M.D., M.R.C.P., London. "Concealed Tuberculosis, or the Tired Sickness," by George Douglas Head, B.S., M.D.

Paul B. Hoeber, Inc., New York: "Guy Patin," by Francis R. Packard, M.D. "Translactions of the American Proctologic Society, Twenty-fourth Annual Session," "Diabetes," by Philip Horowitz, M.D.

W. B. Saunders Company, Philadelphia and London: "A Manual of Obstetrics," by John Cooke Hirst, M.D., F.A.C.S. "A Text-book of Pathology," by W. G. MacCallum.

Lea & Febiger, Philadelphia and New York: "Modern Methods in the Diagnosis and Treatment of Renal Disease," by Hugh Maclean, M.D., D.Sc. "Hygiene and Public Health," by George M. Price, M.D.

G. W. Carnrick Co., New York: "Organotherapy in General Practice."

William Wood & Company: "Medical Record Visiting List."

REPRINTS

"Meaning of Functional Nervous Diseases, Mechanism and Management," by Tom Williams, M.D.

BOOK REVIEW

Local Anesthesia Methods and Results in Abdominal Surgery, by Dr. Hans Finsterer. Authorized English version by Joseph P. F. Burke, New York. Rebman Company, 1923.

Having had the pleasure of assisting the author in his demonstration at Charity Hospital, New Orleans, it gives me great pleasure to review text.

The book begins with a thorough resume of the use of anesthesia, conductive, splanchnic, paravertebral, parasacral methods, tracing its use in the European clinics and its advocates in France and America. The importance of anesthesia for the result of abdominal operations, is brought out, showing the effect of general narcosis, on lowering blood pressure, that has already been affected by toxines and lowering of intra-abdominal pressure following laparotomy. He emphasizes the relief by local anesthesia, assisted by intra-muscular injections, infusion, etc. He analizes Schrer and Weisel's explanation of surgical shock, and brings out the effect of general narcosis on the liver. He interprets post-operative complications, i.e., vomiting, intestinal atomy, interruption in peristalsis, acute peritonitis and pulmonary disturbances. The comparison is made of pulmonary complications as a result of local and general anesthesia, in addition to giving methods of facilitating expectoration, especially in the aged. The indications and contra-indications for local anesthesia in preference to general narcosis are emphasized by his saying, "The chief dangers of every major operation are due to general anesthesia and its harmful results."

In cases of psychically excited patients, he uses a preliminary preparation of pantopon, morphin, atropin. In cases of appendicitis, cholelithiasis, he uses a combination of beginning narcosis (Ether Rausch) and subsequent local anesthesia, never using chloroform. With patients over fifty years of age, conductive anesthesia alone is used. In gastric cases splanchnic anesthesia alone is the one of choice and Ether Rausch only when absolutely necessary. In obese cases, the use of 1-4 per cent instead of 1-2 per cent novocain is advocated, infiltrating the line of incision. In inflammation in the abdominal cavity a combined anesthesia is the preference.

In the next chapter he discusses solutions,—synergistic action of quinine-sulfate, the addition of hydrochloric acid to prevent the decomposition of adrenalin, the limit of quantity injected and the safeguards when injected. The anatomical facts brought forth show why it is necessary to use splanchnic, paravertebral and parasacral anesthesia, also showing the technique of splanch-

nic anesthesia (Braun's Kappis' or Nageli's). In operating umbilical and ventral herniae the standard procedures are used.

In appendectomies in anesthetizing a fan-shaped infiltration of the abdominal wall and a special method of injecting the iliac cavity is used, in operating a physiological incision, that is, muscle splitting, plus incising the rectus sheath 1 cm. upward and downward. Finsterer believes that in true diffuse peritonitis following appendicitis, a thorough irrigation with a salt solution is advisable. Ether is harmful (from the formation of adhesions). In acute suppurations use local infiltration of the abdominal wall and ether during the cleansing of the abdominal cavity. Acute suppuration in the ilias fossa is no contra-indication for deep injection, as it is made far away from the inflammatory area. Operations on the cardia and esophagus are unsatisfactory. In treating cardio-spasm, use splanchnic anesthesia and the Heller operation. Under the head of gastric resection the author differentiates methods and points out the advantage of the "resection with typical anastomoses" (Hofmeister or Finister method), favoring the idea of Narreth for a standardization of methods, either by proper name or otherwise. He gives the differentiation of the Billroth No. 1, Billroth No. 2, Haberer, a true Kromlein, a Mikulicz, or Kromlien-Mikulicz, a Reichel or Polya, and Hofmeister or Finsterer method. He gives a complete description of the Finsterer method, showing how the stomach should be severed and the anastomosis performed. The essential point is to prevent retrograde filling of the duodenum (1) incision of stomach obliquely and in perpendicular axis of body, (2) utilizing the lower part of the cross-incision of the stomach, (3) the ascending loop must not be too short, so that one can fasten it high enough for closing of the stomach wall. Under the heading of duodenal ulcer, the author tells us when to make unilateral exclusion of van Eiselsberg or the resection of stomach for the exclusion of the duodenal ulcer. Re-operations for septic ulcers of jejunum are difficult and the length of operation is from 2 1-2 to 5 hours. The anesthesia used is conductive with the assistance of ether. The radical operation is an extensive resection of the stomach with the anastomosis, the pyloris and adjacent duodenum and the descending loop of the anastomosis is also removed (20-50 cm.) using different methods to restore the continuity. Finsterer does not favor gastroenterostomies except in advanced carcinoma. He then uses an anterior gastro-enterostomy with an entro-anastomosis. In acute gastric and duodenal perforations, he favors local anesthesia—19 times suture of ulcer plus gastro-enterostomy, 3 times resection, 4 cases simple suture.

In operations where there is acute hemorrhage he favors immediate interference. (Within 48 hours, 17 resections. Later than 48 hours, 32 cases, 10 deaths. 22 resections, 6 deaths.) In the post-operative treatment for hemorrhage he favors the Oelhecker method of transfusion and cautions against large doses of morphia. In surgery of the bile passages he reports unfavorable results due to ether—liver changes referring to the work of Widal, Abramin and Hutnal. He favors cholecystectomy removing the gall-bladder from the fundus to the cystic duct. A small drain is used in all cases. Within the past two years he has used mostly Braun's anterior Splanchnic anesthesia. In 156 cholecystectomies no fatalities. For stone in the common duct he formerly used a trans-duodenal choledochotomy, now uses for the past year a wide anastomosis between the choledochus and duodenum. To prevent possible icteric post-operative bleeding he uses X-ray treatment of the spleen to increase the coagulability of the blood. He has found operations for carcinoma of the gall-bladder unsuccessful. Brutt found in 43 cases of primary carcinoma of the gall-bladder, gall-stones present in all. Cholecystenterostomy was performed eight times. Palliative methods are given preference in neoplasms. A special danger in these cases is post-operative hemorrhage due to jaundice, treated by X-ray, as previously mentioned.

A valuable sign in liver injuries is a primary bradycardia due to the effect of absorption of bile acids. The prognosis is improved by using an Ether Rausch for exploration and conductive anesthesia if necessary.

In splenectomy he uses either an Ether Rausch or splanchnic anesthesia, but preferably paravertebral anesthesia (eighth dorsal to second lumbar nerves).

In cases of intestinal obstruction, he specifies not to use fan-shaped injection of abdominal wall, but to infiltrate in layers. He is also a firm advocate of abdominal irrigation, (20-30 litres of salt solution in cases of acute peritonitis). In these cases an entero-anastomosis and complete intestinal exclusion according to the method of Hochenegg has great advantage in allowing inflammatory adhesions and suppuration to reduce and make a secondary extirpation of the excluded bowel possible without danger.

In resection of large intestines resection about the flexures can be done with conductive anesthesia of abdominal wall and mesentery, but with resection of ascending and descending colon (over a broad area) Ether Rausch is necessary. The anesthesia of choice is paravertebral (tenth dorsal to fourth lumbar nerve). The results are better with a resection and primary suture of both ends. The essential in a lateral anastomosis is a wide otomy near the blind end and suturing the blind ends to the intestinal wall. Radical operations for carcinoma of the rectum are performed best under parasacral anesthesia (Braun's)—if insufficient, may inject anterior to the fifth dorsal vertebra, to block off communicating fibers connecting with the splanchnicus (Finsterer). The author reports 75 radical operations for rectal carcinoma with nine deaths (12 1-2 per cent mortality). For high rectal carcinoma a combined abdominosacral operation is advised, using conductive anesthesia for abdominal wall, Ether Rausch for mobilization of the sigmoid and parasacral for the resection. A primary Cholestomy of the transverse colon is best to reduce the number of wound infections.

For operations on the female genitals, he refers to Thaler of the Shaute clinic and his method of para-uterine infiltration anesthesia.

An apology for including kidney operation under abdominal operations with reference to those operated upon transperitoneally and a splendid field for conductive anesthesia, is the concluding paragraph. The author favors the paravertebral method as recommended by Lawen and Kappis.

The book is well-written, with conclusive data and should be read by all doing abdominal surgery.

EMILE BLOCH.